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BALTIMORE, MARCH 11, 1909.

REGRETS.

The MANUFACTURERS' RECORD regrets that it gave, with the best intentions, publicity to the item headed "Six Stages," in the fourth column of page 58 of its issue of March 4, 1909, dealing with a reported purchase of land from the Carolina Trucking Development Co. We have information from that company, which is of high standing, to the effect that the reported transaction was not consummated.

PEOPLE AND RAILROADS.

The board of government of the National Association of Cotton Manufacturers, Mr. C. J. H. Woodbury of Boston, secretary, has adopted a resolution urging legislators of the country to ascertain carefully before placing new restrictions upon railroads whether such restrictions will imperil earnings or interfere with the progressive development of facilities. The association, in common with other organizations of manufacturers and business men, recognizes the urgent necessity for extensive improvements in the transportation facilities of the country to meet the demands of future traffic, and that the hostile attitude in any of the legislative bodies, State or National, will tend to make railroad managers hesitate to undertake large plans for accelerating freight movement and intensify the caution of investors consequent upon hostile or misdirected legislation or agitation in the past. The chorus call from material influences of the country for conservatism on the part of the public in dealing with transportation interests is having its effect upon the public mind

as the conviction grows that the health of the people and of the railroads are interdependent.

YUM-YUMMING THE SOUTH.

With justification the New York *Sun* rises to protest against "merely tiresome hucksters of flapdoodle" continuing to indulge in "gulps and ecstasies in general," in unmeaning yum-yumming and "pearly songs of thingumbob" which have bobbed along the flood of nonsense and folderol about the "new South" at banquets, reunions, conventions and congresses for lo! these many weary years. It says:

It is all rot and rignarole. Northern and Western men are swarming into the South, and have been for many years. The cotton mills of the Carolinas, the steel, coal and iron mines and manufactories of Tennessee and Alabama, the sugar and rice fields of Louisiana, the lumber industries of Mississippi and Florida, these and a hundred other pursuits have absorbed the immigrants; intermarriage and community of interest have drawn Easterners and middle Westerners into the local civilization and identified them with the destiny of the section. The Southern boom was born of its own natural resources, not of maudlin mouthing over dinner tables or at the head of visiting delegations.

The New York *Sun* might have added that one of the most striking evidences of the vastness and irrepressibility of the natural resources of Southern wealth is the fact that now and then men about whom some of that wealth has accumulated—it may be in spite of themselves—are willing to use part of it in paying tribute to mere hucksters of flapdoodle and folderol.

COLD STORAGE IN THE SOUTH.

In a letter to the MANUFACTURERS' RECORD Mr. D. A. Tompkins of the D. A. Tompkins Company, Charlotte, N. C., discussing a suggestion that brewery plants that have become idle in prohibition States might be converted into cottonseed-oil mills, writes:

The cottonseed-oil season has become a short one, because there are so many cottonseed-oil mills that the quantity of seed does not hold out for a long run. I therefore think it doubtful whether it would be an economic investment of capital to turn the breweries into oil mills. The central Northwest is well supplied with cold-storage plants, where very large businesses are done in the way of preparing dressed fowls for the market and carrying them in storage pending orders from the big cities. In almost the entire cotton-growing belt businesses might be developed in the way of cold storage for all kinds of fowls, eggs, butter and other similar articles. The brewery companies generally have ice plants, or at least cold-storage plants, in connection with their operations. Therefore, the idle brewery plants would be better adapted for doing this storage business than for the cottonseed-oil business. I would suggest that the abandoned breweries which are situated near enough to the big markets might very well undertake to develop some new business of this kind, which would be developing new enterprises rather than providing excess competition for the businesses already existing.

Bearing upon this is a dispatch from San Antonio explaining the model facilities in that city for handling the local meat supply. San Antonio has a central slaughter-house, where all local

butchers are required to do their killing. A trained veterinarian is in charge and inspects every animal before and after the killing. Butchers pay a small fee for each animal killed, and the fees in the aggregate are nearly enough to support the institution. Meat is regularly inspected after it gets into the shops, and the utmost precautions are taken to prevent the use of spoiled meat. The system is reported as working very well.

The San Antonio system might be adopted in other Southern cities not already enjoying such sanitary facilities, and the adaptation of buildings formerly used as breweries, with their refrigerating apparatus, might well fall in with the plan and insure to the communities a steady supply of fresh meats.

VIRGINIA IMMIGRATION.

It is reported that opposition is developing in some quarters in Virginia to Hon. George W. Koerner, State Commissioner of Agriculture and Immigration, on the ground that his efforts to direct a healthy stream of immigration to Virginia have tended to increase the number of unemployed skilled men in that State. It is hoped that the common sense of Virginia may persuade any such opposition to subside. We know of no immigration official in the country who has rendered more zealous and more intelligent service for the development on healthy lines of his State than Commissioner Koerner. He has carefully avoided the pitfalls offered in conventions, etc., into which other officials in other States have fallen; he has not been touched by the foreign lobby shifting between New York and Washington in the interest of an immigration that should be resisted by the citizens, native or foreign-born, of every Southern State, but in a most businesslike way he has acquainted himself with the practical needs of Virginia in this particular, has sought in other parts of the country or abroad to meet those needs, and has succeeded in turning into Virginia a most desirable class of immigrants, either buyers of farm lands or sturdy men willing to labor at any honest task until they may accumulate enough to own their own farms or to establish their own industries. Opposition to certain manifestations of immigration to the South, or rather certain attempts to flood the South with undesirable and improper immigration, is perfectly justified, but just as the need for immigration to the South should not be permitted to be used by alien influences to flood the South with undesirable immigrants, so opposition to undesirable immigration should not be permitted to degenerate into opposition to all immigration or to the crippling of the wise and practical work of such men as Commissioner Koerner.

PUBLICITY.

We referred recently to plans for the full exploitation of the advantages of Buffalo, N. Y., for manufacturers and other investors. The movement appears

to be spreading, for Providence is preparing to become a sort of dynamo for the development of Rhode Island. The idea was brought to the front by 2500 men at a dinner under the auspices of the Board of Trade, and it involves improvement of the harbor, with public dock and bonded warehouse; a system of industrial education, opposition to legislation detrimental to business interest securing more equitable tax laws, united support of public improvements generally, offering inducements for the location of new commercial enterprises and the expenditure of \$6000 upon the maintenance of a bureau of publicity. Isn't it time for Southern cities either to get into this campaign to the utmost limit, or, as is the case in a number of instances, if they are already in it, to double their efforts? Cities that have engaged in the campaign of publicity upon practical lines know that it is the surest way to promote a city's growth.

TELLING OF SOUTHERN ACTIVITY.

Each week the MANUFACTURERS' RECORD receives hundreds of reports relative to the general industrial activity throughout the South. This activity touches practically every branch of manufacturing, mining, milling, building construction, municipal betterments and other improvements. It includes the establishment of new cotton mills and the enlargement of existing mills for utilizing the great staple in the spinning of yarns, the weaving of cloth and the knitting of hosiery and other articles; cottonseed-oil mills, saw and planing mills, the installation of plants to mine coal, iron and other minerals; the construction of blast furnaces and coke ovens, the development of water-powers to generate electricity for transmission to manufacturing and lighting plants, the improvement of lands for rice and sugar cultivation and the location of mills to handle the products; irrigation and drainage plants, especially in Louisiana and Texas; municipal, county and State improvements, such as electric-light and water plants and sewer systems, modern roads, the paving of streets and sidewalks, the erection of schools and courthouses, the building of office structures, warehouses, railway stations and various other structures.

A notable feature of the development is that millions of dollars being invested are furnished by Northern, Eastern and Western capitalists, who have become convinced of the manifold industrial and agricultural possibilities of the South's natural resources. Many of the best-known capitalists of the country are taking advantage of these possibilities and ensuring profitable returns from their investments not only in the immediate establishment of industries, but also in acquiring mineral, timber and other properties for advanced prices in the future.

The principal details, indicating the

character and extent of all these various undertakings, are outlined each day in the *Daily Bulletin* of the MANUFACTURERS' RECORD, and the facts are presented collectively for the complete week in the MANUFACTURERS' RECORD. This news not only chronicles facts for the general reader, but it also presents the data in such comprehensive form as to be invaluable to the manufacturers and dealers who are aiming to meet the continually increasing demand of the South for machinery, tools and supplies of all kinds.

Last week the MANUFACTURERS' RECORD's Construction Department (omitting the railways department) presented 654 items of general industrial news in all classes of activity. Among these were references to 17 electric-lighting and power plants, 12 foundry and machine works, 14 ice and cold-storage plants, 31 lumber-manufacturing enterprises, 75 miscellaneous propositions not otherwise classified, 64 miscellaneous manufacturing enterprises, 24 road and street-improvement items, 23 water-works propositions, 19 bank and office buildings, 28 churches, 32 schools, 56 miscellaneous structures.

In the Machinery Wanted Department appeared 117 items, referring to the needs of purchasers in the machinery, supplies and other lines, including calls for bids on the construction and equipment of complete plants of various kinds, and the lesser wants of individuals, firms and companies. No want is too important and none is too insignificant to warrant its appearance in this department. Most of the items refer to products in general use, but many of them refer to specialties and other articles not in active demand every day. Among the unusual wants noted last week were the following: Cement bags, peat briquetting machinery, candy factory supplies, chewing-gum machinery, fiber cans, canvas-glove machinery, log loaders, church pipe-organ, printed forms and books for railway work and chairs and stage scenery for theater.

CONDUITS NEEDED FOR WIRES.

Improved construction of telegraph, telephone, electric-light and power overhead wiring may result from the extensive losses, direct and indirect, caused by the blizzard of Inauguration Day. Business affairs are now so complex that merchants and others cannot afford submission to the delays and inconveniences of a suspension of electric service of any kind for even 24 hours, yet a severe storm of snow and sleet, especially when accompanied by high wind, is likely to cause wreckage which may take several days to repair.

While it is not possible, excepting at prohibitive cost, to make electric wires sufficiently strong to avoid breakages caused by falling trees, many light-weight wires will no doubt be replaced with heavier material, to prevent, if possible, breaking from only the strain of sleet upon them, and many trees may be removed from dangerous positions. But the time is coming, if it has not already arrived, for the laying of wires in conduits between our most important cities in order to remove our means of immediate communication with principal points as far as can be done from the adverse influences of the weather. It is almost equally a matter of need to similarly protect the wires conveying light and power, as many persons depend upon electricity alone for illuminating, and not a few industries rely upon it for motive power. The advantages of electric conduits were fully

proven after the late storm in such places as enjoyed them, highways being illumined as usual in the conduit districts, while other sections were in darkness.

The need for electric-wire conduits along our railroads is quite as pressing as anywhere. It must be apparent to the railroad companies that, had their block-signal wires been laid in conduits, their signaling systems would have continued uninterruptedly in operation throughout and immediately after the storm, and the long delays in train movement would not have been experienced, for the snow did not present a serious obstacle. Broken wires which fell across the tracks, or, in the case of electric railways, of transmission wires being broken by falling trees, contributed to the interference with train running. Electric light and power companies would also have appreciated the value of conduits not only for the trouble and expenses which they would have saved, but because of the guarantee of constant service they would have afforded to the satisfaction of customers and the subsequent increase of business to the service companies.

It is 21 years since the blizzard of 1888, when a sleet storm, similar to that of March 3 and 4 of this year, prostrated telegraph and railway service over a large part of the country, yet little progress has been made toward rendering the telegraph service immune to storm influence. Given the weather conditions like those of the March storm in 1888, the telegraph seems to fall with a promptitude equaling that displayed more than two decades ago. Surely we ought to take steps to better things, so that another repetition of that sort of thing shall be practically impossible.

SOUTHERN LAND OPPORTUNITIES.

That it is the South's vital necessity to hold its population, as well as to attract new settlers, is the excellent point made by the *Times-Dispatch* of Richmond, Va., discussing the regrettable habit of some railways operating in the South of co-operating, for the mere sake of passenger income, with railways elsewhere engaged in seeking to attract settlers from the South. It says further that there ought to be other reasons why men should stay in the South than the fact that they cannot get a cut-rate ticket away. It insists that in addition to splendid natural resources the South should have excellent schools, fine roads and progressive ideals. All of which is very true, and in all parts of the South are evidences of efforts to add to the attractiveness of the South in these particulars. With the steady increase in Southern wealth in recent years, especially since the turn of the century, the legitimate excuse, as far as finances are concerned, for backwardness has become less and less appealing. But it must be remembered that the South has by no means the density of population upon which a perfect school system and first-class public highways must rest. It is, therefore, essential to the progress of the South that its desirable population should be increased. That increase must be attracted by the opportunities presented for the future, even if the pioneer stage must now and then be experienced. Some of the opportunities, some of the chances for future comfort and affluence, are well presented by an editorial in the *Southern Field*, issued by Mr. M. V. Richards as a feature of the effective campaign for Southern development which he has for many years been conducting through the land and

industrial department of the Southern Railway. It says:

The South has advantages of such merit that they cannot fail to impress themselves upon the homeseeker who gives them serious consideration and carefully studies the conditions which surround the occupancy and operation of its lands. A well-planned survey of the situation will readily convince one that in its opportunities the South offers more than can be secured in any other section of cheap lands and territory yet to be developed, and that its future holds more for its farmers than will be realized by those who till the soil in other portions of the continent.

It is not alone the low-priced farming properties of the South which will appeal strongly to the homeseeker, though cheap land is usually the controlling factor in inducing immigration and securing new residents, and has seemingly greater weight than all other considerations. The South possesses this chief requisite in remarkable degree, but with it has opportunities for the farmer which he cannot expect to enjoy beyond its boundaries. The conditions of climate and soil are admirable. The Southern farmer is not confined to one crop or one harvest; he can grow practically everything known to agriculture, and, with few exceptions, on a commercial scale; and can distribute his gathering of crops over many months of the year. No matter in what branch of farming the new resident is skilled, he can bring all his experience and training into his farming operations in the new home and is not compelled to adopt new and untried tillage, but can continue along his old line of activity, as the South produces bountifully of the crops of the North and West and for the majority of them is a more promising field. In the raising of cattle, horses, mules, hogs and sheep; in the production of milk, cream, butter and cheese; in the growing of grains and grasses, and in the cultivation of many other crops there is the widest opportunity for financial success, as the markets are first-class, in close proximity to the point of production, and the prices are of the best. The wonderful growth of the South in manufacturing constantly increases the home markets for the products of the farm and adds materially to the value of the farm as a business proposition.

The enhancement in value of lands in the South, purchased at the present low prices, is a foregone conclusion. This is a phase of the situation which should be kept prominently in view, as it covers the ultimate aim of the homeseeker, whose desire is to secure new land holdings not only such as will give good returns for the care and labor bestowed upon the growing of crops, but such as will increase in value and prove a splendid heritage. The fact that land is cheap is of itself of no significance. If its location is not advantageous and the conditions such that it cannot be brought in the future to a higher valuation, it is not cheap at any price, and no figure which would be mentioned would make it attractive. But the cheap lands of the South have inherent worth; they are well located, can be brought to the highest state of cultivation, and will produce crops of such value that the figures of themselves easily substantiate the claim that in the not distant future they will rank with the highest-priced farm properties of any section.

The homeseeker who secures for himself a permanent farm home in the South on the basis of present land values makes an investment which will both pay large dividends annually from the farm production and give him property of many fold value to hand down to future generations.

Lands are the main attraction offered to settlers in other parts of the country. The only explanation of the success of that attraction for men whose going is a loss to the South is the old theory of distance lending enchantment to the view. It is the old story of sacrificing substantiality for a mirage. A united effort by all the railways of the South on the lines so thoroughly laid out and so sedulously maintained by the Southern Railway would quickly dissipate the mirage.

MARYLAND'S INJUSTICE TO HERSELF.

That Baltimore and other centers in the State have not advanced in manufacturing to the extent justified by their locations, and that, consequently, Maryland has not the industrial and agricultural rank among the States warranted

by her natural advantages and opportunities has long been recognized as a fact. Earnest efforts by practical men have from time to time been made to change this situation, and the rectification has been approached from many directions. The MANUFACTURERS' RECORD believes that the campaign in which Mr. DeCourcy W. Thom is leading, and which, at our request, he discusses in other columns of this issue, is dealing with a fundamental cause of the gross injustice that Maryland is inflicting upon herself. Whatever the occasion may have been for embodying in the Constitution of 1869 the basis for representation in the Legislature of the several political units of the State, it is difficult to understand how any reasonable citizen, whether of the counties or of the city of Baltimore, cannot see that under conditions of today the city of Baltimore is directly hampered in its growth, and that such hampering reacts injuriously upon the rest of the State. Mr. Thom has sketched quite clearly this hampering, especially in the case of Baltimore. But a study of the accompanying tables, one showing the representation in the House of Delegates proportionate to population of the several counties and the other showing the representation proportionate to the value of property assessed for State taxation, convinces one that Baltimore city is not unique in suffering injustice:

Counties.	Population 1901.	Delegates.	Population to each Delegate.
Allegany.....	53,304	5	10,660
Anne Arundel...	34,791	4	8,698
Baltimore.....	88,025	6	14,671
Calvert.....	9,963	2	4,981
Caroline.....	16,792	2	8,396
Carroll.....	33,651	4	8,413
Cecil.....	24,450	3	8,150
Charles.....	16,602	2	8,301
Dorchester.....	28,233	4	7,073
Frederick.....	51,639	5	10,328
Garrett.....	17,368	2	8,684
Harford.....	28,207	4	7,077
Howard.....	16,276	2	8,138
Kent.....	17,788	2	8,894
Montgomery.....	29,155	4	7,289
Prince George's...	28,325	4	7,081
Queen Anne's...	18,568	3	6,189
Somerset.....	25,628	3	8,549
St. Mary's.....	16,890	2	8,445
Talbot.....	20,314	3	6,771
Washington.....	44,491	4	8,888
Wicomico.....	22,908	3	7,636
Worcester.....	20,905	3	6,935
Baltimore City...	517,035	24	21,543
Total.....	1,181,691	101	11,699

Counties.	Property value assessed for State taxes, 1908.	Delegates.	Assessed property to each Delegate.
Allegany.....	\$19,638,532	5	\$3,927,706
Anne Arundel...	12,778,910	4	3,194,727
Baltimore.....	96,908,590	6	16,151,430
Calvert.....	2,384,220	2	1,192,110
Caroline.....	5,500,850	2	2,750,425
Carroll.....	17,311,797	4	4,327,949
Cecil.....	11,846,632	3	3,948,877
Charles.....	3,767,875	2	1,883,938
Dorchester.....	7,106,777	4	1,776,444
Frederick.....	21,647,949	5	4,329,589
Garrett.....	7,673,348	2	3,836,674
Harford.....	12,304,745	4	3,076,186
Howard.....	8,921,692	2	4,460,846
Kent.....	8,366,801	2	4,183,400
Montgomery.....	14,126,890	4	3,531,722
Prince George's...	12,031,952	4	3,007,988
Queen Anne's...	8,897,643	3	2,965,881
Somerset.....	5,217,098	3	1,739,033
St. Mary's.....	3,382,691	2	1,691,345
Talbot.....	8,840,050	3	2,946,680
Washington.....	21,159,555	5	4,231,911
Wicomico.....	6,310,352	3	2,103,451
Worcester.....	3,725,850	3	1,241,950
Baltimore City...	474,079,523	24	19,753,313
Total.....	\$794,929,222	101	\$7,870,586

The figures of population are those of the State census of 1901, and changes made in the past seven years must be kept in mind in dealing with that phase of the question. They show that the average proportion in representation in the House of Delegates for the whole State is one member to every 11,699 of the population. The proportion for every county in the State, save Baltimore county, which has one member to every 14,671 of its population, is greater than the average proportion for the State as a whole, and far greater than that for Baltimore city, which has only one member to every 21,543 of its population. Similar inequality exists in the proportion of representation to assessed value

of property. Here the average for the State is one member to every \$7,870,586 of assessed property. Baltimore county, with but one representative to every \$16,151,430, is the only county which has not a greater proportion of representation than the State average—one representative to every \$7,870,586—while Baltimore city has but one member to every \$19,753,313.

Likewise, though in less degree, are certain counties of the State affected unjustly under the present system of representation in the Legislature. Two facts will illustrate this. The aggregate population of Calvert, Charles, Dorchester, Somerset, St. Mary's and Worcester counties is 118,181, and their aggregate assessed property value is \$25,583,418. They have, together, 16 members in the House of Delegates, or one member to every 7386 of their population and to every \$1,598,963 of their property. On the other hand, with only the same aggregate number of members in the House of Delegates, Baltimore, Frederick and Washington counties have an aggregate population of 184,158, or 11,500 to each member, and aggregate property values of \$139,716,084, or \$8,732,255 to each member.

Is it not time for a general revision of representation, if only to equalize things among the counties?

FLOUNDERING.

One of the great arguments set forth in literature mailed from Washington for use in Southern newspapers in promotion of the scheme for the establishment at Washington of a bureau of publicity for the late Southern Commercial Congress is the statement that "Washington is the great center for European influence." Exactly. That fact is not appreciated, we believe, by the Southern gentlemen who have been more or less interested in the movement, but the MANUFACTURERS' RECORD is convinced that it explains largely the Southern Commercial Congress attempt, and that conviction is strengthened by our knowledge of the sounding around this week by one of the foreign missionaries of the movement.

THE COTTON MOVEMENT.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight for the first six months of the season was 11,129,248 bales, an increase over the same period last year of 1,915,399 bales. The exports were 6,480,590 bales, an increase of 625,856 bales. The takings were, by Northern spinners, 1,973,397 bales, an increase of 805,467 bales; by Southern spinners, 1,460,957 bales, an increase of 44,467 bales.

In the 186 days of the season up to last Friday the amount of cotton brought into sight was 11,291,330 bales, an increase of 1,953,918 bales. The exports were 6,592,224 bales, an increase of 669,812 bales. The takings were, by Northern spinners, 2,017,592 bales, an increase of 810,873 bales; by Southern spinners, 1,509,957 bales, an increase of 61,225 bales.

"News and Views of Hartsville" is the title of an attractively illustrated booklet published by the Hartsville Publishing Co., telling of the advantages and enterprises of Hartsville, a flourishing town in the Pee Dee section of South Carolina. Among the industries noted are a mill making paper and pulp from pine, a factory making cones for cotton mills, a cotton factory, a cottonseed-oil mill, a furniture factory, a plant making hollow silverware and a door, sash and blind factory.

How Maryland's Industrial Growth Is Handicapped.

[Written for the Manufacturers' Record.]

By DECOURCY W. THOM.

You ask me to state how the present under-representation of many electoral districts in Maryland prevents—

(a) The lowering of taxes throughout the State, and

(b) The great increase of population in Maryland which her natural advantages should produce.

The lack of full realization of those great advantages results chiefly from the system which prevents the logical development of manufacturing in Maryland.

The tidewater situation of Maryland, and especially that of her great city of Baltimore, which is nearer to soft coal and many other raw materials of manufacture than any of her rivals situated on tidewater, should make Maryland one of the greatest manufacturing States and Baltimore city the very greatest manufacturing city in the United States. But under-representation of many electoral districts of the State, amongst which Baltimore is the chief sufferer, results in—

1. Unnecessarily high taxes throughout Maryland generally, and in Baltimore city in the highest tax rate amongst the 12 largest cities of the United States, and

2. In less perfect and successful and helpful switching facilities connected with her chief manufacturing area—Baltimore city—than those enjoyed by her great rivals.

That handicapping tax rate and largely impeding switching condition turn away many manufactories and enterprises which would greatly increase the per capita wealth of Maryland and of Baltimore, give employment to more of our actual population and induce more people seeking employment to settle in Maryland, and in Baltimore especially, and thereby increase the demand for dwellings and the various necessities of life, and in general increase in Maryland the taxable basis, the population and the circulation of money. Philadelphia enjoys perfect switching facilities, and does not tax the machinery, stock in trade or capital of any manufactory. Largely therefrom she produced in a recent year a greater value of manufactured products than in that same year was the total taxable basis of Baltimore city, and she lost nothing through those tax exemptions, for the consequent increase in number of employees resulted in those employees building more houses and otherwise adding to the taxable basis and to the average expenditure per person. But Baltimore, kept poor by State taxes far in excess of her proper share, is held back in developing in a way which by greatly increasing the wealth of the State would greatly reduce the tax bills of every Marylander.

But how does under-representation prevent lowering of taxes throughout Maryland? The majority of the Legislature of Maryland consists of members representing electoral districts inhabited by only about 22 per cent. of the population of Maryland. The little clique of State and county politicians—Republican if the Republicans control Maryland and Democratic if the Democrats control Maryland—co-operating with their respective local machines in the various electoral districts, engineer nominations in the primaries, and thus securing the vote of the blind adherents of their party label, secure the election of those nominees to the Legislature, which is the lawmaking and tax-imposing body of the State. The clique in question is consequently very persuasive with the Legislature they have helped create. Their tax exactions from Baltimore city resulted, according to the Comptrol-

ler's figures for 1908, in making Marylanders living in Baltimore city pay about \$1,197,000 more than their due share of the total State expenses of about \$3,760,000. That excess payment of about \$1,197,000 is illustrated in part by (a) public school taxes, which special excess is by many not complained of; (b) liquor licenses, 25 per cent; (c) higher basis of city than county assessment; (d) good roads \$5,000,000 loan, about 75 per cent; (e) court fees paid by Baltimore city, but of which any surplus is taken by the State.

Now, that excess of about \$1,197,000 annually wrung from Baltimore, if allowed to be retained by her, would reduce her tax levy 26 cents on the hundred; or, employed in part that way and in part to provide sinking and interest funds against new borrowing made by Baltimore city to perfect her switching facilities, say by a bridge, or, far preferably, by a tube or tunnel under the harbor connecting the practicable manufacturing areas about the city of Baltimore, would remove her tax and switching handicap as compared with her rivals and lead to the logical and immense increase in her wealth, and, therefore, in that of the State of Maryland. The value of the taxable basis thus vastly increased would greatly lower the rate of taxation throughout Maryland. Besides thus directly cutting down their share of State taxes, Marylanders outside of Baltimore would find it much easier to have this, that or the other facility financed for them by their fellow-Marylanders energizing and growing richer in Baltimore city. Conversely, the vastly increased wealth of Baltimore would simultaneously be much more than now on the lookout to invest throughout Maryland. What Maryland, outside of Baltimore city, now lacks in the way of development through the unjust and ill-laid taxation imposed because of the actual under-representation of most of her population in the Legislature amounts to self-destruction, is unfair, and costs vastly

more than is represented by that portion of the State's expenses she compels Marylanders living in Baltimore city to pay for her. All Maryland is held down by the system dominating the State. Only the little clique—Republican or Democratic—running that system profit by it, for they have engineered the laws and practices which allow that domination through the Legislature or the Conventions, which alike are composed of a membership proportioned as 28 to 100. Now, that former figure, 28, represents 517,000 Marylanders living in Baltimore city, and that latter figure, 100, represents 664,000 living elsewhere in the State.

What is the cure for all this artificial system which keeps our beloved State from realizing her splendid natural advantages, and which actually keeps every laborer, farmer, newspaper man, lawyer, doctor, and all others engaged in gainful pursuits from much increased income, and the poor poorer, because it prevents the logical increase of manufacturing and other business in Maryland?

That cure is the obvious one of rectifying all under-representation in the law-making and tax-imposing body, the Legislature. A proper rectifying of representation in the Legislature would leave Baltimore city in decided minority; she would have less than two-fifths of the membership. When the principles of no taxation without due representation, and of just and proportionate representation are resumed in this Commonwealth, which was chiefly founded on them, the people can be represented by a sufficient number of men of what character they choose to protect their rights and make possible their logical development in wealth and what facilities are proper. Not securing that representation leaves the voters of Maryland responsible for their own undoing. We must oppose any political party which refuses to put in its party platform substantially that amendment to the Constitution which the Just Representation League offers as the method for bringing about just and proportionate representation of every under-represented electoral district of Maryland.

The Iron Tariff and the Birmingham District.*

By CAPT. J. C. MABEN, President

Sloss-Sheffield Steel & Iron Co.

I have read carefully what you have written regarding the tariff on pig-iron, and bearing on this district. I have also read carefully the whole of Judge Gary's testimony before your committee, and I do not find where Judge Gary stated that he did not "think free trade on iron and steel would be injurious to the United States Steel Corporation or our district." He did not state that the reduction in the tariff rate would bear more injuriously upon the competitors of the United States Steel Corporation than upon that company. Neither can I find where Judge Gary stated that iron and steel could be made cheaper in this district than at any point in the country. So far from it, on page 5446 of his testimony, in answer to a question by the chairman of your committee, Judge Gary stated that "the cost of pig-iron at Birmingham is not far from the cost of pig-iron at South Chicago. It is very little different." And in further answer to a question by the chairman as to how close it was, he stated "I am not certain which is lower, but the cost at Chicago, the manufacturer's cost, is probably \$14.75 to \$15." On page 5457, in answer to a question by you, he states that "there are furnaces at South Chicago, Lorraine, Cleveland, Pittsburg and Youngstown, whose cost is very near the same,"

*From a letter to a member of Congress.

having previously stated that the cost at South Chicago and Birmingham was about the same. You quote him as giving the freight rate from German and English ports to New York as \$2.85. On page 5461, in answer to you, he stated that "the export freight rate from Germany would be to New York city \$1.00." You then asked him: "But is not \$1.00 a rather low freight rate from Germany for rails or pig-iron?" To which he answered: "No, I think that is the rate. That is the regular rate, I think, from the seaboard." While he does state that probably the average cost of all iron in Germany is \$11, he further states that a fair average in Lorraine-Luxemburg district, which is a large producer of iron, is \$8.50, and that in England the cost of the production of pig-iron is about \$10. Leaving out of the question the German iron, which can be produced at \$8.50 (and in dull times will undoubtedly seek this country), and taking the English cost of \$10 and adding the \$1.00 freight and \$2 duty (if it is reduced to that), puts their pig-iron at New York or along the coast at \$13.60 cost. With a \$4.50 freight rate, which we have, to put our iron at the same point, our cost could not exceed \$9.10, which is much below the average at this time, when pig-iron is a good deal cheaper than it was prior to the panic, owing to the reduction in the rate

of cutting coal and ores and the general reduction of wages around furnaces. Prior to the panic \$12 might be considered as a comparatively low average of cost for this district, at which price we could not lay pig-iron down on the northern coast and cover cost at less than \$16.50, which would give the English iron an advantage of about \$3 a ton over this district.

We used to make pig-iron considerably below \$9, but the day for that has passed forever, for labor would never be content to go back to the wages which satisfied them in those times. I think when Judge Gary puts the cost at Pittsburg and Chicago of iron at \$12.29 for his furnaces he has not included any depreciation or renewal fund for the repairs and rebuilding of furnaces when they burn out, for he testified in another place that the cost was \$14.75 to \$15, and I think that is about right.

While the iron ores which go into our furnaces are undoubtedly delivered at the furnaces at much less cost than at the Northern furnaces, we must remember that this ore is very lean, the red ore (which is the backbone of iron-making in this district), running from 32 to 38 per cent. in metallic iron, against their 55 to 60 and 65 per cent., which, of course, takes a great deal more of our seams of coal in this district, and the absolute necessity of washing the coal in order to eliminate the sulphur or ash before it is coked (which is not done in Connellsville or West Virginia), our coke costs very much higher than the coke from most of those places. Any material reduction in the tariff on pig-iron will affect this district more seriously than any other part of the country, and I can well see how the manufacturers of iron at Pittsburg, Chicago, etc., might even be willing to see it done, because pig-iron brought from abroad has got to pay the freight from the coast to these interior points, where the great markets for the pig-iron and finished material are. For instance, I think the rate on pig-iron from New York to Chicago is \$4.50; therefore, iron brought from England and laid down at the Atlantic coast at a cost price of \$13.60 would stand \$18 and something at Chicago; whereas we, having to seek a market in the Northern States, have to bear the burden of the freight rate to those points ourselves. A very large amount of the iron produced in this district finds its way up along the Atlantic coast—Camden, New York, Long Island Sound, and on up to New England, as far as Boston. We would, of course, be shut out of those markets entirely with any material reduction in the tariff.

I don't see that a reduction in the duty on ores could affect us very much, but to put coal on the free list would be disastrous to this district. West Virginia mined last year over 46,000,000 tons of coal, a very large proportion of which found its market all along the Atlantic coast from Baltimore, Philadelphia and New York up to Boston and into Maine, and recently (if not at present) the New York, New Haven & Hartford Railroad had a five years' contract with West Virginia to furnish them their entire fuel supply. Now, if coal is to be let in free, Nova Scotia can put her coal all along the coast at a very much less price than West Virginia would be able to do, and would drive West Virginia out of that market. They, of course, would not consent to go out of business, and the consequence is they would seek a market throughout the region where this district is now finding sale for its coal, and all through South America and Cuba. Today the Atlantic Coast Line is supplying nearly the whole of its fuel from West Virginia, landing it at Wilmington, Charleston and Savannah, and I believe the only coal bought in this

district for fuel consumption by that road is to supply the short division from Montgomery to Waycross. Their coal can be produced much cheaper than ours, and they have already shut us out of a large market which we formerly enjoyed, and if their surplus stock is to be thrown South I fear for the coal-mining interests in this district. You will probably recall that when Mr. Cleveland was elected President, with a Democratic House, and the Wilson bill was introduced, and it was proposed to put coal on the free list, this district

sent a large delegation to Washington to protest against it. Mr. Mabon was telegraphed for at New York, and met the committee at Washington, and they urged that it would be disastrous to the coal-mining interests of the State of Alabama for the reasons which I have given in this letter.

Please pardon the length of this letter, but I feel it is a very important matter to this district, and we want to go on record as having so urged before anything is done. Birmingham, Ala.

INVENTORY OF GEORGIA WATER-POWERS.*

By S. W. McCALLIE, State Geologist.

In making an inventory of the natural resources of Georgia, one of the most important questions for consideration is the water-powers. This subject is of special interest just now. It is estimated that the steam powers of the country use approximately 260,000,000 tons of coal annually, or considerably more than one-half of the production of 1907. It is further estimated that this coal produces about 26,000,000 steam horse-power for all manufacturing purposes, motor power, electric lights, etc., which power we are told is less than one-half of our water-powers now going to waste. In other words, we

calculate with considerable degree of certainty the approximate water-power of the State. For convenience of description, the water-powers will here be described under the following hydrographic basins: The Savannah basin, the Ogeechee basin, the Altamaha basin, the Apalachicola basin, the Mobile basin and the Tennessee basin.

The Savannah drainage basin, above Augusta, Ga., where practically all of the water-power is found, comprises an area of 7300 square miles. The main water-powers of this basin occurring in Georgia are found on the following streams: The Savannah River (formed by the Tugaloo

TENNESSEE NORTH CAROLINA



FLORIDA
GEORGIA HYDROGRAPHIC BASINS.

are told if only one-half of our water-powers was utilized it would save annually 260,000,000 tons of coal, and thereby lengthen our approaching coal famine more than a century and a half. What is here said of the wasted water-powers of our country at large may likewise be said of many of the individual States, such as Georgia, which has extensive undeveloped water-powers.

In the last 14 years the Geological Survey of Georgia, in co-operation with the United States Geological Survey, has been continuously engaged in collecting data in regard to our streams. While this data is by no means yet complete, sufficient information is now at hand to enable us to

*The writer is under obligations to Mr. M. R. Hall, district manager water-resources branch, United States Geological Survey, for assisting in collecting the data for this paper.

and the Seneca rivers 100 miles above Augusta), the Tugaloo River, the Chattooga River, the Tallulah River, the Broad River, the South Broad River, the Hudson Fork, the Middle Broad River and Beaver Dam Creek. The indicated horse-power of these several rivers is here given:

Indicated Horse-power of the Savannah River Drainage Basin.

Section of river.	Minimum horse-power during six months.	Minimum high-water horse-power.
Savannah River:		
From Augusta to Seneca River.....	92,890	139,070
Tugaloo River:		
From mouth to mouth of Tallulah River....	15,160	22,730
Chattooga River:		
From Tallulah River to West Fork.....	21,300	31,900
Tallulah River:		
From mouth to head..	24,350	37,370
Broad River:		
From mouth to opposite Carnesville.....	15,632	29,494

South Broad River:		
From mouth to S. A. L. Railroad bridge.....	1,780	2,460
Hudson Fork:		
From mouth to opposite Homer, Ga.....	1,830	2,700
Middle Broad River:		
From mouth to opposite Carnesville.....	1,270	1,620
Beaver Dam Creek:		
From mouth to opposite Elberton.....	1,250	1,840
Total.....	175,462	269,184

The Ogeechee drainage basin, which is the smallest of the several drainage basins above named, lies almost wholly within the coastal plain, immediately south and west of the Savannah basin. The drainage area above Millen is 1900 square miles. The chief stream is the Ogeechee River, formed by the junction of the Williamson Swamp and the Rocky Comfort creeks. The indicated horse-power of the Ogeechee drainage basin is given in the following table:

Indicated Horse-power of the Ogeechee River Drainage Basin.

Section of river.	Minimum horse-power during six months.	Minimum high-water horse-power.
Ogeechee River:		
At Millen.....	3,110	7,770
Cannouchee River:		
At Groveland.....	785	1,960
Total.....	3,895	9,730

The Altamaha drainage basin is one of the largest drainage systems of the State. The main streams forming the system, namely, the Oconee and the Ocmulgee rivers, rise in the northern central part of the State, and after flowing many miles to the southeast finally unite in Montgomery county to form the Altamaha, which, in turn, continues to the southeast, entering the Atlantic Ocean at Darien. In addition to the two rivers above named, the more important streams of this basin are the Middle Oconee River, North Oconee River, Mulberry Fork, Apalachee River, South River, Alcovy River, Yellow River and the Ochopee River. Practically all of the water-power of the streams here mentioned, with the exception of the Ochopee River, is confined to the Piedmont Plateau north of Macon. The estimated horse-power of these individual streams is as follows:

Indicated Horse-power of the Altamaha River Drainage Basin.

Section of river.	Minimum horse-power during six months.	Minimum high-water horse-power.
Oconee River:		
From Milledgeville to junction of Middle and North rivers.....	17,480	26,510
Middle Oconee River:		
From mouth to head..	2,748	4,371
North Oconee River:		
From mouth to opposite Maysville.....	3,350	5,360
Mulberry Fork:		
From mouth to Mathis' bridge.....	213	340
Apalachee River:		
From mouth to High Falls bridge.....	1,768	2,885
Ocmulgee River:		
From Macon to Yellow River.....	12,640	21,060
South River:		
From Yellow River to Southern Ry. bridge..	2,887	4,910
Towalliga River:		
From mouth to head of High Shoals.....	742	1,464
Alcovy River:		
From foot of Newton Factory Shoals to Dalney's bridge.....	1,031	2,062
Yellow River:		
From mouth to head of Simmons' dam....	3,179	6,690
Ochopee River:		
At Reidsville.....	1,050	2,620
Total.....	47,088	78,272

The Chattahoochee River is the most important river of the Apalachicola drainage basin. It rises in the high Blue Ridge Mountains in the extreme northern part of the State, and after flowing to the southwest and south for more than 400 miles finally unites with the Flint River at the Georgia-Florida line to form the Apalachicola River. The drainage area of the Chattahoochee River above Columbus, where the main water-power occurs, is 4900 square miles. Other important streams of the Apalachicola basin are the Flint River, Ichawaynochaway Creek,

Muckalee River, Big Potato Creek and Sweetwater Creek. The estimated available horse-power of these streams is here given:

Indicated Horse-power of the Apalachicola River Drainage Basin.		
Section of river.	Minimum horse-power during six months.	Minimum high-water horse-power.
Chattahoochee River:		
From Columbus to Sand Creek.....	118,570	189,190
Flint River:		
From Albany to head of Flat Shoals.....	45,774	75,950
Ichawaynochaway Creek:		
From mouth to —.....	2,620	4,710
Muckalee River (including Kinchafoonee Creek):		
From mouth to —.....	4,580	7,390
Big Potato Creek:		
From mouth to —.....	1,800	3,240
Sweetwater Creek:		
From mouth to head of Austell Shoals.....	442	1,100
Total.....	173,786	281,550

The Mobile drainage basin, so called because its waters enter the Gulf through the Mobile River, is drained by the Coosa River and its tributaries, the most important of which are the Etowah River, Coosawattee River, Cartecay River, Conasauga River and Chattooga River. That part of the basin in Georgia includes a large part of Northwest Georgia to the north and east of Rome, and comprises an area of 4649 square miles. The estimated horse-power of the above-named streams are here given:

Indicated Horse-power of the Mobile Drainage Basin.		
Section of river.	Minimum horse-power during six months.	Minimum high-water horse-power.
Etowah River:		
From mouth to head.....	26,697	40,039
Chattooga River:		
From above Little River to opposite Summerville.....	687	1,180
Coosawattee River:		
From mouth to Ellijay.....	18,900	35,840
Cartecay River:		
From Ellijay to mouth of Pumpkin Creek.....	4,590	6,880
Conasauga River:		
From Beavertale to head and on Jack River.....	6,650	11,865
Total.....	58,524	95,804

Two small detached catchment areas belonging to the Tennessee basin occur in the extreme northern part of the State, one along the Georgia-North Carolina line and the other along the Georgia-Tennessee line. The main streams of the former are the Ocoee, the Hiwassee and the Nottely rivers, while those of the latter are Chickamauga River, West Chickamauga Creek and North Chickamauga Creek. The approximate horse-power of these several streams is as follows:

Indicated Horse-power of the Tennessee River Drainage Basin.		
Section of river.	Minimum horse-power during six months.	Minimum high-water horse-power.
Chickamauga River:		
From mouth to near head.....	368	736
West Chickamauga Creek:		
From mouth to near head.....	425	835
N. Chickamauga Creek:		
From mouth to near head.....	1,330	2,650
Ocoee River and Tributaries.....	22,536	44,072
Hiwassee River and tributaries.....	3,650	6,720
Nottely River.....	5,586	10,320
Total.....	33,895	65,333

The aggregate horse-power of all the streams above named is here given:

Aggregate Horse-power of the Rivers of Georgia.		
River Basins.	Minimum horse-power during six months.	Minimum high-water horse-power.
Savannah basin.....	175,462	289,184
Ogeechee basin.....	3,895	9,730
Altamaha basin.....	47,088	78,272
Apalachicola basin.....	173,786	281,550
Mobile basin.....	57,524	95,804
Tennessee basin.....	33,895	65,333
Total.....	491,650	799,873

I nearly all of the above estimates only 90 per cent. of the actual fall of the streams has been given, and the indicated horse-power has been reduced in most

cases to 80 per cent., so that the results are thought to be quite conservative and well within the practical working limits. In these estimates we have made no allowance whatever for storage, which in many cases would increase the minimum power from two to three times, nor have we taken into consideration a great number of small streams which would probably aggregate a power approximately equal to the water-power now being utilized by the State.

Omitting for the present these two factors, which would, no doubt, increase the water-power more than twofold, we still have, at the annual lowest known stream stage, an approximate aggregate of 500,000 horse-power. This power, if produced by steam, would require an annual consumption of about 7,000,000 tons of coal,

or more than one-half of the coal production of Alabama in 1907. The money value of this power, reckoning a horse-power at \$20 per annum, is 10,000,000, which is nearly equal to twice the State's annual income from taxes and all other sources.

By the use of storage dams, or by the use of auxiliary steam power for short periods during the dry season, fully 1,000,000 horse-power, at a low estimate, could be utilized. The immensity of this power may be better understood when it is stated that the combined labors of Alabama's coal miners in 1907, consisting of an army of more than 20,000 strong, could not supply the furnaces with coal which would be necessary to produce a steam power equal to Georgia's water-power.

CADDO NATURAL GAS FOR NEW ORLEANS.

[Special Correspondence Manufacturers' Record.]

Shreveport, La., March 6.

One hundred million cubic feet of gas from two wells every 24 hours was the record-breaking demonstration made today in the Caddo gas and oil field by representatives of the Busch-Everett syndicate in the presence of a specially invited party of business men and officials from New Orleans. Incidentally this trip will do more to advertise real conditions in this wonderful field than anything that has heretofore occurred, and it marks the beginning of the first effort to utilize the Caddo gas on a large commercial scale.

The Busch-Everett syndicate, asking for the privilege of supplying gas to New Orleans householders and manufacturers, invited the Mayor and members of Council, representatives of all the commercial organizations in the city and of the newspapers to visit the Caddo field to satisfy themselves as to the holdings of the syndicate and the ability of the field to provide an ample supply of natural gas. Two Pullman loads of visitors made the journey last evening from New Orleans to Shreveport, and today, accompanied by representative business men of Shreveport, covered by train and other conveyances almost the entire length of the oil and gas field. The two wild and burning gas wells were visited, and finally the two completed and capped wells of the Busch-Everett syndicate. These, 1000 feet apart and some 33 miles north of Shreveport, were opened and allowed to blow off in the air for a few minutes to demonstrate the enormous pressure and flow of gas in this field. What was seen profoundly impressed every member of the party, and enthusiastic endorsement of the proposition to pipe the gas to New Orleans was given.

The Busch-Everett syndicate's application for a franchise will probably be acted on by the City Council of New Orleans within two or three weeks. While some opposition has developed to the franchise as asked, criticism having been directed particularly against the 50-year term it proposes, there is an intelligent appreciation of the vast benefit it will be to New Orleans to have natural gas supplied, and it is the general expectation that without paralyzing amendment the franchise will be given.

With natural gas in practically unlimited quantities for fuel, it is regarded as possible for New Orleans to become the center of the greatest chemical industry in the world, in accordance with the inspiring suggestions contained in Dr. David T. Day's masterly review of the possibilities here, set forth in his article on "Southern Potentialities in Mineral Development," which appeared in the MANUFACTURERS' RECORD of January 7, 1909. Every expression of those justified in giv-

ing an opinion is to the effect that with natural gas as a basis, there should come to New Orleans a development in numerous lines of industry such as would make the next 10 years the most momentous in her history and justify the expectations of the million population which has been of frequent prediction heretofore.

If the New Orleans franchise is granted, it is the syndicate's declared intention to begin the construction of a pipe line without delay, and the opinion is expressed that possibly within a year the entire line, of some 325 miles length, will have been completed. According to the calculations of the syndicate, an 18-inch main will be required throughout the entire length, with three and perhaps four pumping stations en route, so that the gas may be delivered at New Orleans with as great a pressure as that at the field. Should the line to New Orleans be built, it is calculated that intermediate cities, particularly Alexandria and Baton Rouge, would also be served. The cost of the pipe line and pumping stations is figured by the syndicate at about \$7,500,000. Including the cost of land in the field, wells, pumping machinery, pipe line and equipment and facilities for service, it is estimated by the syndicate that by the time gas is delivered to customers in New Orleans an investment of somewhere between \$15,000,000 and \$20,000,000 will have been made.

The Busch-Everett syndicate began operations in the Caddo field last December, and up to date have invested over \$500,000 in lands. Something like 200,000 acres of oil and gas lands have been secured, about two-thirds of it under lease and the balance in fee simple. Two wells have been completed and five more are being drilled. The field work is in the hands of E. C. Mercer, who is one of the most noted natural-gas experts in the country, and who organized the Busch-Everett syndicate. Mercer's home is in Marietta, Ohio, and he has been prominently identified with gas and oil development for more than 20 years. He introduced natural gas into Columbus, Ohio, in 1888, and he took gas from the Standard Oil Co. and marketed it at a time when the commercial possibilities of natural gas were unrecognized by the heaviest oil operators. It is probably a fact that no man has more generally secured the utilization of natural gas than he, and he therefore came into the Caddo field with an unusually valuable equipment as a gas expert. He first visited the Caddo field in June of last year. He has been operating with the Busch-Everett interests in the great Western Illinois oil field in Clark, Crawford and Lawrence counties, and has been associated with Everett in oil and gas development for 20 years. Adolphus Busch,

the St. Louis brewer, and his son August A. are both interested in the Busch-Everett syndicate. Edward H. Everett, Washington, D. C., is, among his many activities, chairman of the American Bottle Co., a \$10,000,000 corporation whose stock he largely owns, and which operates the largest bottle-making plant in the world, with works at Newark, Ohio. It is an interesting side fact that 100 gas wells in Licking county that supply the works with gas have a combined capacity only equal to that of one of the developed Caddo wells belonging to the Busch-Everett syndicate.

Others in the present syndicate represent additional St. Louis capital, and also New York. G. H. Walker, St. Louis, is actively interested, as are S. T. Ely and the same St. Louis banking interests which have long been identified with various features of Southern development. There is said to be no question about securing all the funds necessary to carry out the present undertaking. Harry B. Hawes, a distinguished member of the St. Louis bar, represents the syndicate in Louisiana in the work of completing the organization and launching the enterprise.

When plans for entering the Caddo field had been formed Mr. Mercer took hold in vigorous fashion. Within three days after his return in December he had spent \$100,000 for land and had begun drilling. He says there has never a day passed since then that he has not been writing checks for more land or development work.

The first well brought in was finished about 60 days ago, and the second one about 15 days since. They are 48 feet in the gas-bearing sands of the first of the four different gas rock strata of this field, which is here encountered at 1060 feet depth, and is all gas-bearing rock. There is a pressure of 460 to 465 pounds to the square inch at the well—instantaneous. By the time the gate valves can be shut down they get the pressure. Estimating the flow through the six-inch opening, each of these wells, when allowed to run, is producing at the rate of 50,000,000 feet a day—declared to be the greatest wells ever known. There was much notoriety given the El Caney well in Kansas, which burned for some weeks a few years ago. Each one of these Caddo wells would make two El Caneyas.

In addition to the strata in which these wells are bored and which is identified as the same strata found at 800 feet farther to the south drillers have encountered at greater depths what are stated to be three other distinctly different gas-bearing strata. One is at 1400 to 1500 feet deep; another 1800, and the fourth 2200. They are reported as from 50 to 150 feet in thickness, and on this showing it is declared that without question this is the greatest gas field the world contains. And the fact that one of the burning wells has been steadily keeping it up for more than three years is additional evidence that a big field and a long-lived one has been encountered.

Just how extensive the field is there is no information extant. Oil and gas have been found within a strip along both sides of the Kansas City Southern Railroad in a territory 20 miles north and south and 10 miles east and west, and there are as yet no dry holes on the south and east to limit the proven field. Indeed, while no commercially productive wells have as yet been drilled in the immediate vicinity of Shreveport, there is within the city limits a shallow well of which an individual use has been made for 15 years. It will take a very considerable extension of prospecting to at all definitely determine just what

are to be the limits of this gas and oil field.

The first important discoveries were made here four years ago by Congressman Beaman Dawes, a gas and oil man of Marietta, Ohio, who is still heavily interested in the field. There are various versions given of the fate that befell the first well, which went wild and took fire more than three years ago, but the Caddo people would appear to be really much maligned when it is charged that they deliberately burn their gas for advertising purposes, or in the mistaken notion that by getting rid of the gas the more salable oil may be the easier reached and produced. It seems from investigations on the ground that the two wild wells are certainly of accidental origin; that outside of these two there are no burning wells here, and that the waste of gas otherwise is no greater than in every other gas field, not excepting West Virginia, where they are supposed to have a proper appreciation of the value of natural gas. Furthermore, there are half a dozen companies working on natural gas here, supplying and arranging to supply not only Shreveport, but several Texas towns hereabouts. Two companies pipe gas into Shreveport, so that all the factories and every household utilize it. One company is supplying Texarkana; another has pipe on the ground for a line to Marshall, and that place has been piped for service, and still another is working on a project to supply Dallas and Fort Worth.

There is evidenced here as much appreciation of the benefits of natural gas as I have ever seen in any gas community, and certainly there was an enthusiastic welcome and hurrah accorded the New Orleans visitors by the people of Shreveport, with a full appreciation of the great benefits Caddo could confer by supplying New Orleans with natural gas. Shreveport expects to derive great benefit from the development of her natural gas fields, an abundance of which she counts on having for her own use for generations to come, to the upbuilding of her industrial interests and her population many fold.

It is the story of gas men that the first wild well came into existence through the carelessness of the contractor, who failed to properly pack the casing. Had he used what is known as the lubricating process, by which the gas is prevented from escaping on the outside of the casing, or had he paid attention to the warnings received when the escaping gas was noted first, it is declared that the magnificent well could have been saved. It had been in use three months, with a flow of 50,000,000 of feet or so a day, when the defect in the construction of the well developed. Within a few days such a disturbance of the earth around the casing had taken place that the loosened casing was blown out of the hole and the havoc was on. The company owning the well has spent \$20,000 in efforts to bring it under control, and all sorts of plans have been devised and tried, without avail. There is a cone 350 feet across from rim to rim, and in the center a 50-foot crater of spouting, roaring, liquid fire. And this has been going on since January, 1906. The fire is a mere incident of the wreck, however. The water and the gas have widened the well to such dimensions that no way has yet been found to harness the gas. Although somewhat choked by the mud that fills the well, the flow of gas is still considered about 25,000,000 feet a day. The fire is sometimes extinguished by the mud and water, but the disturbance still keeps on, and the problem is no nearer solution than when the gas has again been set on fire.

The second wild well was the victim of a cyclone a year ago, which blew down the derrick and wrecked the gear, so that this

well also got out of control, blew out the casing and entered on a career almost the same as No. 1, and with the same obstacles in the way of bringing it under control. The wells being put in now are better built. Those of the Busch-Everett syndicate, for example, have their casings concreted, which renders the gas dry, and there is no possibility of their getting out of control.

The gas of this field is of remarkable purity. There is no odor of sulphur at the well, and in analysis it shows up about the same as that of Eastern Ohio and West Virginia. As with the oil of the field, it has a paraffine base.

It is difficult to get accurate information as to the number of wells, either oil or gas, in this field. One reason is the vast extent of the field and another is the premeditated secrecy of some of the operators. It is hazarded as an opinion by some of the local people that there are 40 to 60 gas wells in the field, many of which are capped in. Some of these were brought in by oil prospectors. There is greater activity in oil drilling here than anywhere else in the mid-continent field, although the Caddo oil field is regarded generally as still something of an undeveloped proposition. Dry holes are rare, salt wells still rarer, but also wells of small oil production are the present rule. There is a current opinion here that some 10,000 barrels a day are being produced in the field. The alert and conspicuously reliable *Oil Investors' Journal* places the production at 2500 to 3000 barrels a day, with a preference for the lower figure, and reports 43 wells completed and 38 drilling at the date of the report, February 15. The oil is of pure quality, sometimes running as high as .43 gravity, however—a strictly refining proposition—and with so wide a field a development of much greater importance is expected. Some of the larger interests have holdings here; loading racks, tank cars and storage tanks are much in evidence, and all the features of a developing oil field are at hand.

The trend of the formation here is found to be just opposite from that of the Appalachian field, which is northeast to southwest, whereas this is from northwest to southeast. It has been identified with that of Oklahoma, running at a 45-degree angle. Accordingly, and in order to be in position to give New Orleans assurances, should the syndicate receive a franchise, that she will have gas as long as there is any in the country, the Busch-Everett syndicate is taking leases throughout Louisiana, all through the territory where the gas is likely to be found. Believing that a vast impetus will be given the industrial development of New Orleans by the introduction of natural gas, the syndicate desires to be in position to supply the 100,000,000 feet a day that it believes New Orleans will in time require.

ALBERT PHENIS.

Into Kentucky Coal Fields.

[Special Cor. Manufacturers' Record.]
Barboursville, Ky., March 8.

Preliminary surveys were started today for the proposed northern extension of the Cumberland Railroad, which will be constructed from this city to Beattyville, Lee county, a distance of 70 miles. Mr. J. H. Graham of Knoxville is in charge of the surveying crews. Two lines will be run and the most feasible one adopted.

This extension is the most important of recent projects for the opening of the vast coal fields of Eastern Kentucky. The extension will constitute a link in a north and south railway which, it is said, will constitute a part of the Southern Railway system. The Cumberland Railroad is generally credited as being backed by the Southern. The completed portion, extend-

ing south from near this city, is built to the highest standard. The southern extension, from this city to Jellico, taps coal fields of Knox, Whitley and Bell counties, while the northern extension will open the coal areas of Clay and Lee counties. At the north a connection will be obtained with an eastern route, while the southern end, terminating at Jellico, on the Kentucky-Tennessee border, connects with southern lines. A part of the southern extension is complete and in operation, while much tunneling and grading have been accomplished on the remainder of the route into Jellico.

It is very probable that the proposed northern extension of the Cumberland Railroad will be built at an early date. The line as proposed extends through a country where natural obstacles offer the least resistance. The grade all the way from this city to Beattyville is light, and no tunnels will be necessary. The coal field intervening is one of the richest in the South.

During the past four years much capital has been invested in coal and timber lands in Clay and adjoining counties, and with the probability of an early railroad extension through that region, interest in the natural resources of the country has been increased. From six to eight workable seams of coal of the highest grade extend generally over the country.

The coal market in Southeastern Kentucky continues dull. A slight improvement is noted during the past two weeks, but many mines are still curtailing production. No marked improvement is expected for several months.

The Interstate Coal Co., Warren, Ky., has about completed its electrical plant and will soon begin shipments on a large scale. It is stated that 80 cars daily will be produced from the Warren plant.

The Brazenell Company, Lexington, Ky., is a new incorporation, which will develop Southeastern Kentucky coal. The properties of the Bell-Jellico Coal Co. in Knox and Bell counties have been taken over by the new concern.

W. S. HUDSON.

IRON PRICES IRREGULAR.

Conditions Still Unsettled in the Birmingham Market.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., March 8.

The iron market is still in an unsettled condition. Prices are very irregular, and there is no activity in the demand. There were sales of analysis iron in small lots that show no weakening in prices, but that is no indication of the feeling in the general market. There were some good inquiries in the market, but so far as reported they led to no business. One can get iron in good quantity on the basis of \$12 for No. 2 foundry for prompt shipment or for forward delivery. But the query is, Can he get it for less? And if for less, how much less? There was quiet gossip that a limited amount could be worked as low as \$11.50 for No. 2 foundry if for prompt or nearby shipment. While it cannot be said that this is the general asking price, there is every reason to infer from attendant evidence that at this value a limited amount of iron could be worked. Beyond this statement, there is very little to say of the market. If any effort is being made to induce buyers, it is being done as quietly as it can be worked. Your correspondent during a long experience in reporting the Birmingham iron market has never seen it so bare of items of interest. The conditions are charged up to the agitation of the tariff question, and in some quarters no relief is expected until that question is settled.

In scrap iron there is about the same condition of affairs. The stocks are in

good supply, and the market could be shaded, but there is no demand of any moment.

The market for cast-iron pipe is in strong contrast to the other interests. From authentic sources it is learned that contracts have lately been placed with Temple, Texas, for 500 tons of eight-inch pipe, with Cincinnati for 1500 tons, sizes running from 4 inches to 24 inches, on Birmingham basis of \$22.40 for four-inch and \$21.40 for other sizes from 6 inches to 24 inches diameter. Last week the city of Nashville bought 1500 tons on about the same basis. Memphis also placed orders for their yearly requirements, which will approximate 2000 tons, sizes running from 4 to 16 inches, at about the same figures. This district will probably furnish the goods. Orders ranging in size from 100 to 500 tons have been rather free. They have come from points in Texas, Oklahoma, Missouri and Nebraska at prices averaging \$23 for four-inch, \$22 for six-inch, and for larger sizes \$21.50. For gas-pipe the price is \$1 higher. Cheyenne, Wyo., will buy in the next 60 days 26,000 tons of large size pipe. San Francisco will buy 32,000 tons; Bay City, Mich., 1000 tons, and Oklahoma City will buy several hundred tons. There are a number of other places whose wants in this line are to be supplied, and which have negotiations pending for their satisfaction. Many inquiries from the Pacific Coast and from the Middle West are being received, and the outlook for an active business could not be more flattering.

As evidence that business is active at the steel mill, it is published that the shipments in one day last week from the mill covered 98 cars of steel rails and two cars of billets. The steel rails went to the Louisville & Nashville Railroad, and were shipped to 26 different points. There are more to follow for the same buyer. There are other orders to be filled for which contracts were made during the past few months.

It is almost common gossip that in a short time both the Seaboard and the Atlanta, Birmingham & Atlantic Railroad will be taken out of the hands of their receivers and placed in the hands of their own officials. The report is given much credence here.

The creditors of the Southern Steel Co. held a meeting here the past week to take action concerning its affairs, and upon the consent thereto of about 90 per cent. of the creditors the court issued an order of sale. After the legal formalities have all been complied with it will be known that the plans of the reorganization committee have been approved and adopted.

The American Refractories Co. is being pushed toward completion as fast as possible, and rumor is to the effect that contracts for several million of brick have been made for delivery to various industries in this district.

If the building operations are any indication of prosperity we are full of it, for we never had a busier time in that line.

Thirteen corporations applied for charters during the month of February, and the aggregate of their capital was \$250,000. The aggregate capitalization of new companies since the first of January amounts to about \$2,300,000.

The Bain & Hinkler Roofing & Cornice Co. has filed articles of incorporation, capitalized at \$20,000, with C. A. Bain, president, and R. E. Hinkler, secretary and treasurer. A certificate of incorporation was issued to the Kingston Planing Mill, which is to be located at 47th street, between Eighth and Ninth avenues. L. W. Green is president; C. O. Nelson is general manager, and A. Lawrenson is secretary and treasurer. One sale made during the week should not be overlooked, for

it illustrates with what Brierian arms we are reaching out for and inducing business. A good contract for coke was placed with the Spreckles interests in California, delivery covering several weeks. It will probably lead to a more extended business.

J. M. K.

HOUSTON'S TECHNICAL SCHOOL.

Work on the Great Rice Institute to Begin This Year.

[Special Cor. Manufacturers' Record.]
Houston, Texas, March 5.

Sixty years ago William Marsh Rice, a young man born and reared in Springfield, Mass., went by sea to Galveston. He stayed in Galveston for a while, engaging in business, then relocated at Houston, 50 miles inland, on an arm of the Gulf named Buffalo Bayou. In Houston Mr. Rice, as merchant, banker, railroad builder and trader in lands, acquired a fortune. He helped finance the Houston & Texas Central, the first steam railroad in Texas, and in this way formed business connections in New York city. During his later years he made his home in New York, but always kept in touch with public and private affairs in Houston, and spent a part of each year there.

Mr. Rice's sudden death in his New York apartments several years ago gave rise to one of the most celebrated American criminal law cases, and through the efforts very largely of James A. Baker, Jr., an attorney of Houston, the Rice fortune was saved to fulfill the lifelong and well-known purpose of Mr. Rice to establish in Houston a free public school that should perpetuate his memory and repay his debt to the State that made him rich. By the terms of the will that finally was declared the valid last testament of William Marsh Rice, James A. Baker, Jr., and other citizens of Texas became his agents in creating the school to which his estate was to be devoted.

At the time of his death the estate was valued at about \$4,000,000. Today it is estimated to amount to over \$7,000,000. Aside from bonds and other securities, the major portion of the estate is in lands in Texas and Louisiana. One piece of forest in Louisiana bought by Mr. Rice for \$75,000 has today a market valuation of over \$5,000,000.

Mr. Rice had in mind very clearly the kind of school which he wished to establish. He cautioned the trustees against haste. He did not expect to live to see the work of building begun. He was laying a foundation for future service, and his chief desire was that the plan should in no way miscarry by reason of unnecessary eagerness to make a beginning. His trustees have been criticised in Texas for not earlier starting to build the school, but a careful reading of Mr. Rice's letters transferring property to the board demonstrates that in making haste slowly, in conserving the property so as to increase its value and insure to the school the largest obtainable revenue, the board has fulfilled the letter and the spirit of the founder's desire. Strictly in accordance with Mr. Rice's wish, the scope of the institute was defined in its charter as follows:

"The objects, intents and purposes of this institution are declared to be the establishment and maintenance in the city of Houston, Texas, of a public library and the maintenance of an institution for the advancement of literature, science, art, philosophy and letters; the establishment and maintenance of a polytechnic school; for procuring and maintaining scientific collections; collections of chemical and philosophical apparatus, mechanical and artistic models, drawings, pictures and statues, and for cultivating other means of instruction for the white inhabitants of the city of Houston and the State of

Texas, to, for and upon the uses, intents and purposes, and upon the trusts, and subject to the conditions and restrictions contained in a deed," etc.

After consulting many of the prominent educators of the United States, the trustees informally decided to specialize upon technical education. They recognized the fact that Houston and Texas have greater need of technically-trained men than of professionally-trained men. In every city of the Lone Star State industrial enterprises of many sorts find it hard or impossible to obtain the services of as many technically-trained men as they want, and it can be safely stated as a general proposition that each year millions of dollars of bank deposits are sent East for investment chiefly for the reason that the State lacks skilled men who could employ the money in developing Texas' mines, factories and modern agriculture.

Dr. Edgar Odell Lovett, professor of mathematics in Princeton University, was elected president of Rice Institute, and came to Houston in March, 1908, to look over the ground. Here he found himself in contact with a group of strong business men waiting for him to shape the plans for the school—its grounds and buildings, its courses of study, its teaching staff, etc. He found that of the \$7,000,000 estate, \$1,000,000 was invested in funds easily convertible into cash with which to carry on construction. He found a city and a State in which the demand for technically-trained men in the mechanic arts, in business and in the varied branches of agriculture, horticulture and animal industry far outruns the supply from native sources. In a word, Dr. Lovett found in Houston a fund ample to build and maintain a strong technical school; he found a people whose young men and women are eager to acquire technical education, and he found a market quick to absorb such young men and women as rapidly as his school can graduate them.

His own preference, it was quickly made clear, was not for a technical school solely. He let it be known that the Rice Institute would become, if his wishes were respected, a college of liberal arts, with a strong department of technical science. The trustees seem to have come to an agreement with President Lovett on this basis, though there has been no formal announcement to that effect. Dr. Lovett was given a year's leave of absence, and set out on a tour of Europe. He visited the best schools of England and the Continent, and then extended his tour to Japan. He is expected to return to Houston this month and to inaugurate work this year upon the first of the institute buildings.

The probable site of the school is on the prairie just outside the southern limit of the city of Houston. This site will embrace 200 or 300 acres, with some fine woodland. The only hint that has escaped anyone in authority concerning the architecture of the new college group was the remark by Dr. Lovett to the writer that he would be glad to have the institute adopt the Spanish mission style of architecture characteristic of the Southwest, and that, of course, it must be throughout homogeneous.

The State Agricultural and Mechanical College of Texas, at College Station, on the Houston & Texas Central Railroad, is a community apart from any town. Its students reside in dormitories. Legislative appropriations for this school have been thought liberal, but so great is the demand for technical instruction in Texas that each winter sees several scores of young men camping in canvas tents on the college grounds, unable to find accommodations in the college dormitories.

Texas is building new cities, opening up vast areas of arable land to cultivation,

and variously responding to the call for the development of enormous untouched resources. She has 65,000 square miles of valuable coal fields, huge iron-ore beds like those of Upper Michigan and Minnesota, mountains of the finest granite and marble—none of which are today reached by a railroad. In a small way Texas is working portions of her coal and iron deposits; a little more than 8000 men are so employed. But her statisticians estimate that Texas mines would employ 5,000,000 men 60 years, and the politicians are feeling the popular demand that outside capital be permitted to come into the State and develop these resources. The generation that heard Governor Roberts declare he wished he could build a Chinese wall around Texas and keep out every stranger endorsed his wish; but that generation has departed. This generation of Texans, and particularly the young men just beginning their careers here, wish instead to tear down the legislative Chinese walls that impede the entrance of outside men and money into the Lone Star State. They are cramped by the restrictions of a State Constitution that is a consistent series of prohibitions against industrial development. They represent the new spirit of industrialism, of which the Rice Institute is confidently expected to become a powerful exponent. Industrial training is rapidly finding its way into all the primary public schools of Texas. Especially in Houston has it made swift gains. It is the hope and belief of the leaders of this movement that the Rice Institute will serve the Southwest as Cornell serves the school system of the State of New York.

FRANK PUTNAM.

Anxious for Development.

Mr. S. B. Anderson, cashier of the Bank of Celina, Celina, Tenn., writes to the MANUFACTURERS' RECORD:

"The section of country in and around Clay county, Tenn., is one of the largest east of the Mississippi River without a railroad. This section is composed of eight counties in Kentucky and Tennessee in the Valley of the Cumberland, made up of as fertile and productive soil as is found anywhere in the United States. The Cumberland is navigable only five or six months in the year, leaving us entirely without transportation at least half of the year. At least \$500,000 worth of stuff goes out from this county alone during the river season. If we could have yearly transportation this amount would greatly increase. Cookeville, Tenn., is our nearest main line railroad station, but it is 35 miles away. Our hope is to interest capital to build an electric line into this section from Cookeville, which would touch the richest agricultural and timber section in Tennessee. Abundant water-power can be had on the route, and timber and stone necessary to build the road are there also."

To Cultivate Alfalfa.

The Noxubee Farming Co. is to be incorporated for the purpose of development as an alfalfa hay farm, a 1000-acre plantation owned by the incorporators near Macon, Miss. The capital stock of this corporation is \$25,000. The officers are: President, Lyman Carrier, agronomist of the Virginia experiment station; first vice-president, A. E. Kocher, scientific assistant Bureau of Soils, Washington, D. C.; second vice-president, Gordon E. Tower, professor of forestry, Maine University, Orono, Maine; secretary and general manager, M. A. Crosby, assistant agriculturist, Bureau Plant Industry, Washington, D. C.; treasurer, United States Trust Co., Washington, D. C.; foreman of farm, M. G. Crosby, Macon, Miss. The president, the vice-presidents and secretary-treasurer form the board of directors for the cor-

poration. The president of the company informs the MANUFACTURERS' RECORD that it is planned to spend about \$10,000 during the next three years in building fences, improvements and labor for developing this farm. There are thousands of acres in what is known as the black prairie belt of Western Alabama and Eastern Mississippi that are specially adapted for growing alfalfa. A good seeding of alfalfa rents for \$10 an acre in that locality, while similar lands for growing cotton will only bring a rental of \$3 per acre.

In and Near Chattanooga.

[Special Cor. Manufacturers' Record.]
Chattanooga, Tenn., March 6.

The Chickamauga Park Commission, E. E. Betts, engineer in charge, in the James Building, expects to commence in about a month the construction of a boulevard about four miles long, connecting Lookout Mountain at St. Elmo with Rossville, Ga. The construction will be done under the supervision of the engineer, who will purchase the materials, and the plans will embrace the erection of one steel bridge. The Government plans to connect all of the different Government reservations, embracing the battlefields around Chattanooga, with boulevards for the convenience of tourists. The Chickamauga Park Commission will also construct a 90-foot steel truss highway bridge of heavy construction to span West Chickamauga Creek at Lee & Gordon's mill in Walker county, Georgia.

The Legislature has passed a law permitting the issue of \$150,000 in bonds for Hamilton county for the purpose of building and equipping county school buildings; \$100,000 of this amount is for grammar school purposes and \$50,000 for high school purposes.

Davenport Bros. have made a contract with the Stone Fort Land Co. to erect a five-story-and-basement brick mercantile building on Georgia avenue to cost \$50,000, 50x170 feet in size.

Howard & Henderson, care of J. M. Howard, 703 McCallie avenue, will erect a \$5000 grist mill in East Chattanooga.

Constructing quartermaster of the United States at Fort Oglethorpe, Ga., is advertising for proposals for the erection of a two-story-and-basement and attic brick field officers' quarters and a two-story and basement and attic lieutenants' quarters. Both of these quarters will be heated by steam and lighted by acetylene gas.

T. B. COLBURN.

To Develop 20,000 Horse-Power.

Another important water-power-electrical plant now being planned is that of the Southern Traction & Power Co., which incorporated some time ago. This company will build its plant on the Dan and Staunton rivers, several miles from Clarksville, Va., and proposes to transmit by electricity about 20,000 horse-power for lighting and power purposes in Danville, Va.; Burlington, Graham and Haw River, N. C., and probably in Reidsville, N. C. Junius H. Harden, secretary of the Burghaw Traction Co., Burlington, N. C., and associates control the Southern Traction & Power Co.

Electricity at Louisville.

The Southern Electrical and Industrial Exposition, which will be held at the First Regiment Armory in Louisville April 12-24, under the auspices of the Louisville Commercial Club, promises to be a most important electrical event. It is designed to further in Louisville and the South generally electrical development. Sufficient space has been disposed of to insure the success of the venture, and included among the exhibitors will be found some of the largest electrical manufacturers in the United States.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

PROGRESS ON THE "ORIENT."

Stillwell's Line Has Much Track Laid and Considerable in Operation.

A recently quoted official report on the progress of construction of the Kansas City, Mexico & Orient Railway says that the Kansas City Outer Belt Electric Line, which will give the company entrance to Kansas City and terminal facilities there, has practically finished grading, and the concrete culvert work is completed. The steel bridges, excepting that for crossing the Missouri River, are received, and it is probable construction will be resumed this year. The track will be laid with 90-pound rails. Between Kansas City and Emporia, Kans., 108 miles, no grading has been done, but from Emporia to Eldorado, 61 miles, grading is about finished, and two miles of track have been laid northward from Eldorado. The steel for bridges is received and ready for erection. Between Eldorado and Wichita, Kans., 32 miles, no construction has been done. From Wichita to Sweetwater, Texas, 433 miles, the line is in operation. From Sweetwater to San Angelo, Texas, 78 miles, grading has been completed, and 11 miles of track have been laid northward from San Angelo, while rails and ties have been received to continue track construction northward for 10 miles more. Steel for the Concho River bridge at San Angelo is on hand.

No construction has been done between San Angelo and the Rio Grande, 304 miles, but on the section between the Rio Grande and Chihuahua, Mexico, 170 miles, the line is in operation for 90 miles eastward from Chihuahua, and grading is done for 12 miles further east. Westward from Chihuahua to Minaca, 122 miles, the Chihuahua & Pacific Railway is used. From Minaca to Sanchez, Mexico, on the western slope of the mountains, 76 miles, the line has been completed and is in operation, while grading is finished for nine miles beyond Sanchez. This leaves 196 miles of track to be completed on the western slope of the mountains to connect with the western end of the line, which is in operation from Las Hormillas to Topolobampo, Mexico, on the coast, 74 miles. On this 196 miles there are 30 miles of grading completed.

Work on the Norfolk & Southern.

An official letter to the MANUFACTURERS' RECORD says that the \$1,000,000 of receivers' certificates authorized will be used by the Norfolk & Southern Railway for various work as follows:

The principal construction contemplated embraces a general office building and freight terminals at Norfolk, Va. The plans are now being prepared for this office and terminal, and the actual construction will begin within a very few weeks. Another piece of work is the construction of the long trestle across Albemarle Sound, on which the company now operates a transfer steamer. The distance is approximately five and one-quarter miles. The bridge will be of standard trestle construction, with five short steel spans 51 feet long; one Sherzer roll lift drawbridge, affording a 140-foot clear opening, and one center pivot plate girder deck draw span, affording a clear opening of 35 feet.

The shops at Berkley, Va., and Newbern, N. C., will be enlarged and additional machinery will be installed. The freight yards at each of these places will also be remodeled and enlarged. Several wooden trestles will be replaced by steel bridges. Several passenger stations will be erected, and additional sidings and

spurs will be constructed. Between Pine-town, N. C., and Bishop Crossing, N. C., 11 miles of track will be constructed for the development of farming and timber interests through an undeveloped territory. The grading on this 11 miles is nearly completed, and tracklaying is under way.

The contract for the Albemarle Sound trestle work has been let to the McLean Contracting Co. of Baltimore, and the contract for the steel bridge will be let to the Pennsylvania Steel Co.

Norfolk & Western Construction.

An official of the Norfolk & Western Railway is reported as saying that the company has work under way double-tracking the line between Huger and Welch, W. Va., including a double-track tunnel at the latter point. This construction is expected to be completed about July 1.

The company is also constructing the Interior & West Virginia Railway in Monroe county, West Virginia, starting from the terminus of the Big Stony Railway at the Virginia boundary and running about 17½ miles to a connection with the Virginia & Potts Creek Railroad. The grading and bridges are about 90 per cent. finished, and it is expected that by July the line will be in operation. On the Virginia & Potts Creek Railroad the grading is about 98 per cent. finished on the four-and-two-tenths miles which are being built from the end of the Interior & West Virginia Railroad to Paint Creek, Va. Extensive iron-ore lands in the Potts Creek Valley will be developed by these lines. Tracklaying has been finished on the Big Stony Railway to the connection with the Interior & West Virginia Railway, which is about 16¾ miles from the beginning of the Big Stony Line near Ripplemead, W. Va., on the Norfolk & Western.

The company has also finished the Tug Fork branch extension, about four miles above Pageton, W. Va., to Anawalt Operation No. 12 of the United States Coal & Coke Co. The Spice Creek branch at Roderfield, W. Va., has been built for four and one-half miles to the Premier Pocahontas Collieries operation, and is now in use. The Poplar Creek branch, near Cedar, W. Va., is built and is being operated for a little more than two miles to the mine of the Majestic Collieries.

Tennessee Northeastern.

Cumberland county, Tennessee, has voted by a large majority to issue \$25,000 of bonds in aid of the Tennessee Northeastern Railroad, which is to build a line from Ravenscroft, Tenn., via Crossville, Johnson Stand and Jamestown to a connection with the Cincinnati, New Orleans & Texas Pacific Railway at Winchester Siding, a total distance of about 120 miles. It is also contemplated to extend southward from Ravenscroft to Chattanooga and northward from some other point on the line to Louisville, Ky., but these extensions are not to be made until the main line is completed. The road is to develop coal and timber regions.

It is further stated in a report from Crossville, Tenn., that T. W. Holland, general manager for the company, will go to London in a few weeks to place the construction plans before English capitalists who are to build the road, and it is expected to have actual construction begin in August or September.

Mississippi River Western Survey.

An officer of the Mississippi River Western Railway Co. writes from Hazlehurst, Miss., to the MANUFACTURERS' RECORD that permanent survey for the proposed line is now being made from Natchez to Meridian, Miss., 190 miles, intersecting the Yazoo & Mississippi Valley Railroad at McNair, the Illinois Central Railroad

at Hazlehurst, the New Orleans Great Northern Railroad at Georgetown, the Gulf & Ship Island Railroad at Mendenhall, and the Mobile, Jackson & Kansas City Railroad at Stephens. The line will also pass near Moore's Healing Springs, Lowe's Wells, Brown's Wells and other resorts. The engineer in charge is Cyrus Plummer, formerly of Kentucky, but now of Crystal Springs, Miss.

The western part of the line runs through a fertile and productive fruit, vegetable and farming country, and the eastern section is through a region of virgin long-leaf yellow pine timber. There are some sections containing large deposits of high-grade building stone and cement rock. The officers thus far elected are: J. W. Hudson of Memphis, Tenn., vice-president; Charles F. Scofield of New York, secretary; W. A. Wall of Nashville, Tenn., general agent; William Cornell of Lake, Miss., industrial agent. Headquarters at Hazlehurst.

It is proposed to issue \$4,000,000 of 25-year 5 per cent. bonds and an equal amount of stock.

New Equipment, Rails, Etc.

The Chesapeake & Ohio Railway is reported to have placed with the American Car & Foundry Co. of Huntington, W. Va., an additional order for 187 freight cars, including 82 40-ton wooden box cars, 41 40-ton stock cars, 26 40-ton flat cars, 32 30-ton coke cars and 6 50-ton steel under-frame flat-bottomed gondolas.

The Lafayette Railroad, Lafayette, Ga., is reported in the market for 375 tons of 60-pound rails and 90 tons of 56-pound rails, with angle bars, bolts and spikes. J. A. Kauffman is general manager.

The Atlantic Coast Line is reported in the market for two combination mail and express cars 60 feet long.

The Chesapeake & Ohio Railway, it is reported, has awarded a bridge contract, demanding 500 tons of steel, to the Pennsylvania Steel Co.

The Atlantic Coast Line, it is reported, has ordered 3000 tons of bridge steel from the McClintic-Marshall Construction Co.

The Louisiana & Arkansas Railway is reported to have ordered two coaches and one combination mail and baggage car from the Barney & Smith Car Co.

The Atchison, Topeka & Santa Fe Railway is reported to have ordered from the McKen Motor Car Co. two gasoline motor cars of 200 horse-power and 55 feet long.

Railroad Reports.

The Gulf & Ship Island Railroad Co. reports for January total operating revenues, \$168,545; net operating revenues, \$43,266. The former shows a gain of more than \$7500 over 1907, and the latter a gain of more than \$15,000. For the seven months ended January 31 the total operating revenues were \$1,108,498 and the net \$273,384. Both of these latter showed decreases as compared with last year.

The Louisiana & Arkansas Railway reports for January total operating revenues, \$114,520; net operating revenues, \$44,073, the former showing a gain of nearly \$36,000 as compared with last year, and the latter a gain of over \$21,000. For the seven months ended January 31 the total operating revenues were \$684,582 and the net \$186,906, both of these showing decreases in comparison with last year.

The foregoing figures are furnished by Fisk & Robinson of New York.

Proposed Interurban Lines.

A letter from Enid, Okla., to the MANUFACTURERS' RECORD says that a movement has been started to build an interurban

line from there, and construction will soon be under way. Local capital is interested and the road will traverse a rich section of country. Within a short time it is expected that there will be three or four interurban lines running out of Enid.

The letter further says a line must be built at once from the city to the stock pavilion, about two miles out. This structure is built of concrete. The line will extend from Enid by way of the pavilion to Guthrie, Oklahoma City and El Reno. It is said that numerous inland towns not connected with steam railways are demanding transportation facilities.

W. S. Hollis, president of the Keystone Investment Co., Enid, Okla., may be able to give information concerning these proposed railways.

C. & O. Extension in West Virginia.

An officer of the Chesapeake & Ohio Railway, Richmond, Va., writes the MANUFACTURERS' RECORD saying that the reported extension in Wyoming and Raleigh counties, West Virginia, is that of the Raleigh & Southwestern Railway (which is controlled by the Chesapeake & Ohio) from Pemberton, W. Va., at the mouth of the Soak Creek branch of Piney Creek, up Soak Creek two miles, across the divide into the head of Winding Gulf Creek; thence down Winding Gulf Creek, the total extension not to exceed six miles. This line is for the development of coal and timber lands. There are no villages of any kind upon it. The work is under the general charge of Mr. H. Pierce, engineer of construction, and the contractors are Johnson & Briggs of Richmond, Va. The work is already let; in fact, this is the resumption of a contract undertaken in 1907 and suspended for some time.

Railway and Ferry Plan.

Mr. William S. Anderson, attorney at law, 54 North Royal street, Mobile, Ala., writes the MANUFACTURERS' RECORD concerning the proposed electric railway from Daphne, Baldwin county, Ala., down the coast of Mobile Bay. He says that a line has been run by an engineer and estimates have been made as to probable cost of construction. This information has been furnished to Chicago parties, who started the project, and it depends upon them to decide whether the line will be built. Daphne is a small town on the eastern shore of Mobile Bay, nearly opposite Mobile, about 12 miles distant. The shore south of Daphne for about 12 miles is built up principally with summer residences. It is contemplated to operate a ferry between Mobile and Daphne in connection with the railway.

Georgia Central Rumor Denied.

An official telegram to the MANUFACTURERS' RECORD says there is no foundation for a recent press report that the Central of Georgia Railway would build a connection with the Illinois Central and also make other extensions.

The report referred to said that a connection with the Illinois Central would be made by building a line from Andalusia, Ala., to a point near New Orleans, about 250 miles; also that an extension to Pensacola would be built from Andalusia, besides a third extension to Union City, Ala.

Virginia Passenger & Power Co.

The United States Circuit Court of Appeals has confirmed the order of the Circuit Court at Richmond, Va., ordering the sale of the property of the Virginia Passenger & Power Co., which includes the street railway and electric power plants at Richmond, Petersburg and Manchester, Va., and a report from Richmond says that an agreement between the parties interested may be reached soon and the proper-

ties sold at auction. It is expected that the Gould interests will continue in control and a new corporation will be formed.

No Million-Dollar Station.

An officer of the New Orleans Terminal Co., New Orleans, La., writes the MANUFACTURERS' RECORD that the company has no plans to erect a \$1,000,000 station and a 12-story office building. This denies a recent press report that the present structure at Canal and Basin streets would be extended and enlarged.

Electric Railway Proposed.

A movement is under way at Burkittsville, Md., to build an electric railway from Brunswick, Md., via Horsey's Distillery and Burkittsville to Middletown, Md., about 15 miles.

Railroad Notes.

A report from Dallas, Texas, says that R. B. Stichter has been appointed general manager for the Texas Traction Co. to succeed T. Stebbins, resigned, but who will continue with the company in an advisory capacity.

The Rock Island-Frisco lines, according to a report from New Orleans, will complete arrangements for the entrance of their trains to that city over the line of the Louisiana Railway & Navigation Co. by June 1. President B. F. Yoakum is quoted as saying that the plans of the company to enter New Orleans and to develop a large and rich territory tributary to it will be carried out as soon as possible.

PHOSPHATE

The Prairie Pebble Phosphate Co.

Additional details in connection with the new plant of the Prairie Pebble Phosphate Co. at Mulberry, Fla., and the methods employed in mining and refining phosphate have been announced. To eliminate fire risk the company decided to employ reinforced concrete, and the buildings, among the largest of their class, are being constructed of that material. The mill building, containing the machinery, will be 100x125 feet, and the dry rock and storage bin 75x525 feet. The phosphate is found in strata of various depths, and the first operation in producing the crude rock is to remove the overburden of sand which covers the deposit. This is done either by the steam shovel or by hydraulic power, the mining of rock proper being to tear down the banks of rock with a stream of water at a pressure of from 125 to 175 pounds. The rock is then handled by centrifugal pumps to a washing plant, consisting of logs, equipped with teeth, and flat or revolving screws, which separate the phosphate from sand, clay or other foreign substances. From the washer the rock is carried to the central drying plant into a hopper, and then elevated into a wet storage bin, from which it is fed to the roasters by means of a tunnel conveyor located beneath the wet bin. The roasters consist of cylinders, with spiral flights and diaphragm on the inside. They revolve slowly, allowing the flame from the crude oil burner to come in contact with the wet phosphate. After thoroughly drying the rock it is carried by bucket conveyors to the top of the mill building and stored in sheds by cars operated by automatic hauls. All elevating and conveying equipment, including wet and dry rock elevators, pan conveyors, car hauls and cars, and the transmission machinery, including the silent chain drive, were manufactured by the Webster Manufacturing Co. of Chicago and supplied by its sales agent, the Cameron & Barkley Company of Tampa, Fla., a branch of the Cameron & Barkley Company of Charleston, S. C.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Qualities of Cypress.

An interesting paper on the "Painting and Finishing of Cottonwood, Yellow Pine and Cypress," read by Mr. S. J. Underwood of Nashville, Tenn., before the recent convention of the International Association of Master Painters and Decorators, held in Baltimore, Md., has been published in pamphlet form. In referring to the growing importance of cypress, he said:

"For the greatest variety of uses, combined with availability, high character and quality, cypress ranks high among the woods of today as a finishing lumber. For ease of working, straightness of grain, lightness and strength combined and durability, everything considered, it has no equal. It is rapidly supplanting white pine for almost everything, and those who have used the two now prefer cypress, claiming it superior for nearly all purposes. It is being used for all kinds of house joinery work, both exterior and interior. On account of its great durability and weather-resisting qualities, it excels for exterior housework, such as doors, window blinds, jambs, facings, porches, weatherboarding, etc., and everyone knows that cypress shingles outlast all others. For interior finish its ease of working, straightness of grain, non-resinous nature and the fine, wide, clear sizes obtainable make it without doubt one of the best woods for this purpose. For exterior or interior purposes it can be painted with entire satisfaction and perfect results. On account of the beauty of its grain and variety of its rich shadings it is a pity when used for interior work to hide its charms under a coat of paint or stain, and I would recommend that it be varnished and finished in the natural. Should it be desired to stain it, this can be done most successfully in imitation of mahogany, rosewood, cherry, black walnut, the different oaks, or tinted any desired shade the most fastidious fancy may dictate.

"I am not speaking of this wood from mere hearsay or idle speculation, but I have been an interested observer of cypress a considerable length of time, and the more I investigate the more astonished I become at its many good qualities. I wish to state that I have finished, myself, several panels of cypress and brought them here for the convention. I am sure that a casual examination of them will convince the most skeptical of the manifold virtues of this wood. I want to particularly call your attention to the panels, both natural and stain finished, of curly or crotch cypress in the exhibit. No wood shows a more beautiful figure than these. The one stained to resemble mahogany is even more beautiful than mahogany, and it is my opinion that before long curly or crotch cypress will be used for the more fancy effects, both in the solid and in veneer."

In treating the painting and finishing of cottonwood, yellow pine and cypress Mr. Underwood handled his subject as if he were painting cypress, because, he said, practically the same directions apply for each of the three woods. In a careful and painstaking way he pointed out the methods to be followed to get the best results, and described the most approved practices of the day. He emphasized the fact that in order to get these results it was absolutely necessary to use the highest grade of materials. He also covered in the same careful way the varnishing, natural finishing and staining of the woods in question.

February Building Operations.

Comparative figures from Southern and Southwestern cities indicate that building operations in these sections were active during February, and in many of the prominent cities substantial increases have been made over the corresponding month in 1908. On the other hand, there has been a decrease in several cities, and notable among these is Norfolk, in which permits were issued for only 49 structures, having an estimated value of \$79,655. As compared with February, 1908, these figures show a decrease in construction cost of nearly \$200,000. Permits were issued in Richmond for new structures, alterations and repairs to the value of \$285,803, an increase as compared with February of last year of \$73,183. A large increase is noted in Atlanta, where permits were issued during the month to an estimated value of \$506,774, an increase over February, 1908, of \$359,559. Operations were not very active in Savannah during the month, but hardly less so than in February of preceding years. The building inspector at Birmingham issued permits to an estimated value of \$132,340 during February, which is an increase of \$40,747 over the corresponding month last year. Ninety-one permits were issued in Jacksonville for new structures, including 83 frame and six brick structures. The building record of Knoxville shows that operations in that city during February more than doubled those of the same month last year. Permits were issued for structures to cost \$44,160, which is an increase over the same month last year of \$23,815. Permits were issued in Memphis to an estimated value of \$287,701, an increase as compared with February of 1908 of \$23,473, while a total of 148 was issued in Chattanooga, representing a valuation of \$100,780. In St. Louis building operations for the month were estimated at \$2,170,140, an increase over February of last year of about \$300,000, and in Kansas City to the value of \$839,525, an increase of \$308,460. San Antonio's operations for the month were estimated at \$570,695, an increase of about \$470,000. Permits were issued in Baltimore to an estimated value of \$392,101, an increase over February of last year of \$153,056.

New Enterprise for Savannah.

A new lumber manufacturing enterprise for Savannah is noted in the incorporation of the Southern Box & Lumber Co., whose organization was recently reported. The new company is capitalized at \$150,000, and its purpose is to manufacture wire lock-corner and nailed boxes, as well as to furnish sawed lumber to other box plants. It has purchased the box manufacturing department of the Morehouse Manufacturing Co., in addition to the plant of the Eagle Manufacturing Co., and will install a twin band resaw with a capacity of 40,000 feet per day, together with other equipment, which will give the enlarged plant a daily capacity of from two to four carloads of boxes and resawn lumber. Improvements are reported as already in progress, consisting of new cement floors, repairing the old machinery and making room for the new equipment, in order to have the plants ready for operation by April 1. The incorporators of the company include A. W. Morehouse and M. F. Meyer of Savannah, and Cushing Adams of New Hampshire. The Snow & Brindell Company of West Swazey, N. H., is also said to be interested in the enterprise.

Big Timber Deal.

A report from Cumberland, Md., states that the Wilson Lumber Co. of Garrett county, Maryland, and Gross & Chaffey of Elkins, W. Va., have purchased 17,248 acres of timber lands on the waters of

Laurel Creek and Spice Run, in the southeastern part of Pocahontas county, West Virginia. It is estimated that the property will cut about 120,000,000 feet of lumber, of which one-half is hemlock and the remainder oak and other hardwoods. The purchasers, it is understood, will develop, erect a sawmill of 100,000 feet daily capacity, a railroad and bridge and other facilities for developing the timber. The property was purchased from Col. John T. McGraw of Grafton, W. Va.; L. M. McClintic, John Alexander and A. D. Williams, all of Marlinton, W. Va., and others.

Rebuilding Lumber Plant.

The Ritter Lumber Co. has begun the construction of its sawmill at Fitzpatrick, W. Va., to replace the plant recently destroyed by fire. The new mill, it is said, will be larger and better equipped than the old one, costing when completed about \$75,000.

The National Wholesale Lumber Dealers' Association held its annual convention in Philadelphia last week.

MINING

Leases Coal Lands in Arkansas.

The Little Rock (Ark.) Packet Co., recently incorporated with a capital stock of \$200,000, and reported last week as having leased coal lands near Coal Hill, Ark., informs the MANUFACTURERS' RECORD that it has leased the W. H. West mine and coal lands in Johnson and Franklin counties, embracing between 900 and 1000 acres. It has purchased two steamers, and is having barges constructed for the purpose of supplying Little Rock and other cities with coal. Facilities for general transportation will also be afforded at points above and below Little Rock. Officers of the company include W. M. Kavanaugh, president; Max Mayer, vice-president; E. T. Reeves, secretary and treasurer, and George R. Brown, assistant secretary.

The Braznell Company.

A dispatch from Lexington, Ky., announces the incorporation of the Braznell Company with a capital stock of \$120,000 and its purchase of a controlling interest in the Bell-Jellico Coal Co. of Pineville, which owns coal lands and operates mines in Bell and Knox counties. It is stated that A. S. Braznell of Pittsburg will be the president of the company, and its main offices will be located at Lexington. In addition to Mr. Braznell, other incorporators include E. J. Hanlon and R. A. Braznell, both of Pittsburg.

Texas Minerals.

Mr. J. C. Martin, 612 Magnolia street, Fort Worth, Texas, writes to the MANUFACTURERS' RECORD that he has been hunting in the neighborhood of that city for minerals and finds there fullers' earth of the best quality in unlimited quantities and of easy access, silica sand, red, blue and gray clay for brick, pottery and tiling, aluminum, iron and sulphur, all needing but comparatively small capital to place them upon the market at a good profit.

Under the auspices of the Cleveland Chamber of Commerce plans are making for an industrial home produce exposition in that Ohio city June 7-19. Mr. F. F. Prentiss is chairman of the executive committee, and Mr. William S. Rose is secretary.

The Gainesville Electric Railway Co.'s property at Gainesville, Ga., has, according to a dispatch, been sold to R. L. West of Atlanta, who bid it in at \$80,000 in the interest of stockholders.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

The Trade of Porto Rico.

Damers & Kuenzli, San Francisco 53, San Juan, Porto Rico, write the MANUFACTURERS' RECORD:

"Our line is stationery and acetylene goods. We would suggest that if any manufacturers of soaps, patent medicines, etc., would care to store goods with us in order to open up an agency we could handle their business on a commission or storage basis. At present cannot think of any line of machinery that we could handle that would be salable here, as outside of sugar-cane machinery there is not much used, and sugar-cane machinery is generally sent direct to the mills where it is to be installed. We would be pleased, however, to communicate with any manufacturers who think there might be an opening for their goods here. Our combined experience in Latin-American countries has been 16 years."

Patent Medicines for Holland.

De Erste Nederlandsche Maatschappij voor Handel in Patent Geneesmiddelen, voorheen, Henri Sanders, Amsterdam, Holland, writes the MANUFACTURERS' RECORD:

"We want some agency of American firms for introducing patent medicines, and we may tell you that Holland is a very good land to introduce such things. We have our own staff of people to distribute pamphlets, and so on. We shall be much obliged to you if you will assist us to find firms who are willing to introduce preparations in Germany, Belgium and France with our own office and travelers. One of our directors wants to start for America at the end of April."

For Trade of Belgium.

Gaston Laurent, Huy, Belgium, writes the MANUFACTURERS' RECORD:

"I would like to represent some American products, preferably on commission. I would place the goods before my patrons in Belgium, and when I had sold a suitable quantity I would cause the goods to be sent direct to the customer from the factory. I would inform myself as to the standing of the buyer, acting as if on my own account. Of course, I would have full explanation in papers in French if possible. In general, I am interested in every article that is salable to dealers in hardware, to architects and to building contractors. I have been established here since 1897."

Wants Glass Bottles.

L. M. Vakil & Co., Alembic Chemical Works Co., Ltd., 3573-74 near Old Bombay Bank, Ahmedabad, India, write the MANUFACTURERS' RECORD:

"Our firm largely imports empty glass bottles of different sizes and shapes and quality from other countries than yours. If any manufacturer of this line in your country can supply us with these articles at such rates as to be suitable to us in competition, we request you kindly to inform them to send us samples, with full details and lowest rates d./d. free Bombay Harbor."

For Germany's Trade.

Ervin Muhleck, Hohe Bleichen 8-10 (Sternhof), Hamburg, Germany, writes the MANUFACTURERS' RECORD:

"I should be very thankful if you would bring my name to the attention of some of the factories known to you which are en-

gaged in manufacturing tools of any kind whatever. I would like to handle their products either as purchaser on my account or as commission agent. Further, I would respectfully advise you that I am interested in all kinds of raw material, as well as in all kinds of goods which are salable in Europe."

Wanted in India.

M. Karnack & Co., Basavangudi road, Bangalore City, India, writes the MANUFACTURERS' RECORD:

"We have a market for best sweet scents, essences and other perfumes. The manufacturers are requested to send their samples with prices and trade turns directly. We have market for new and second-hand treadle power printing presses of every size, and printing papers, envelopes and other stationery. Samples with trade quotations and price-lists are wanted soon."

Canning Machinery Wanted.

P. D. de Pool, Obispo Num. 7, Havana, Cuba, writes the MANUFACTURERS' RECORD:

"Can you give me information about tomato canning machinery and catsup manner of working tomatoes? This being a large tomato-raising country for export, the seconds and thirds are thrown away and canned tomatoes imported. I think that a good factory could be established to can and make catsup."

Surgical Instruments Wanted.

Ernst Schottola, Budapest, Austria-Hungary, writes the MANUFACTURERS' RECORD:

"We wish to get into communication with leading firms making surgical instruments and accessories (bandages). We would like not only to purchase goods from them on our own account, but we would also accept agencies."

Concrete-Block Machinery Wanted.

Emil Zerkowitz, 49 Exchange Place, New York, writes the MANUFACTURERS' RECORD:

"A large Hungarian concern is interested in the latest inventions and makes of concrete-block machinery. May I request you to point out to me a few names of those manufacturers who are building such machinery?"

Oil Machinery for Turkey.

M. N. Demirjian, 43-45 White street, New York, or Aintab, Turkey, writes the MANUFACTURERS' RECORD:

"I would like to get catalogues and f.o.b. prices on wine, molasses, olive oil, linsed oil and starch machinery. Please let me know names of the firms or ask some of your subscribers. Let them send me direct, as I have not left much time."

Ball-Bearing Roller Skates.

Universal Motor Imports Co., 10 Wilington Square, Rosebery avenue, London, W. C., England, write the MANUFACTURERS' RECORD:

"We are desirous of representing good firms manufacturing American ball-bearing roller skates."

Canning Machinery Wanted.

H. G. Burnet, superintendent El Caimital Fruit Co., Paso Real, Cuba, writes the MANUFACTURERS' RECORD:

"Can you furnish me a list of manufacturers of canning plants, more particularly for pines."

The Cox Manufacturing Co. of Anderson, S. C., contemplates installing looms for the production of cotton cloth. It is now operating 25,000 ring spindles and manufacturing yarns.

TEXTILES

The Dacotah Cotton Mills.

The Dacotah Cotton Mills of Lexington, N. C., has organized with C. A. Hunt, Jr., president; E. L. Green, vice-president, and W. H. Mendenhall, secretary-treasurer. R. C. Bibberstein of Charlotte, N. C., engineer in charge, has prepared plans for the buildings, including a 101x300-foot main structure, two stories high, and a dye and cotton house 90x90 feet. The equipment of machinery will include 8640 spindles and 240 looms, driven by electricity. Contract for lappers awarded to Kitson Machine Shop, Lowell, Mass.; drawing and spinning machinery, Mason Machine Works, Taunton, Mass.; roving machinery, Providence Machine Co., Providence, R. I. The Dacotah company was incorporated in December with a capital stock of \$150,000, and has been previously mentioned in these columns. It expects to begin manufacturing by December 1, but has not decided as to the product.

New England Mill Men.

The National Association of Cotton Manufacturers will hold the eighty-sixth meeting at Boston, Mass., on April 28-29. Great interest is anticipated in the forthcoming report of the committee on the standard specifications on plain gray goods, which committee submitted a preliminary report at the meeting held at Saratoga Springs last September. Among other subjects which are expected are transportation for mill yards, cotton futures on the New York and New Orleans Cotton Exchanges, commutator grinding, air conditioning for cotton mills, finishing and bleaching, loom improvements, losses in cotton due to moisture and other causes, additional top strippers on revolving flat cards, scientific methods in warp sizing, automatic looms, economy in steam generation, preparation and marketing of cotton to the factory, cotton-fiber substance and its properties, advantage of variable speeds for ring spinning and later forms of spindles.

A Knitting Mill at Creedmoor.

The Standard Hosiery Mill Co. of Creedmoor, N. C., has been incorporated with a capital stock of \$50,000 and with \$4000 paid in. It will install a gasoline engine and 20 knitting machines for a daily production of 125 pairs of hose, and will employ 15 persons. The incorporators are W. B. Lasley, mentioned recently in this connection; L. V. Peace and W. P. Cozart of Creedmoor, R. W. Gray of China Grove, N. C., and P. R. Post of Redwood, N. C.

The Ball Ground Cotton Mills.

The Ball Ground (Ga.) Cotton Mills has reorganized and elected Frederick A. Abbott, president; Lowry Bolling, vice-president, and J. E. Farmer, treasurer. It will resume construction of plant previously announced, including a two-story 75x250-foot main building, a power-house, a warehouse, etc. Previous reports stated the equipment will be 10,000 spindles and 300 looms for manufacturing denim and duck.

Eureka and Springstein Mills.

Leroy Springs of Lancaster, S. C., president of the Eureka Cotton Mills and the Springstein Mills, Chester, S. C., is reported as planning to improve those plants. It is stated the 500 Springstein looms will be removed to the Eureka plant, and that a new equipment of looms will then be installed in the Springstein mill. Mr. Springs states he has not completed his plans for the extensions.

Ivanhoe Manufacturing Co.

The Ivanhoe Manufacturing Co. of Smithfield, N. C., has organized with W.

M. Sanders, president, and F. K. Broadhurst, secretary-treasurer, and is now planning to build a 5000-spindle cotton-yarn mill. This company was mentioned last month as incorporated with a capital stock of \$300,000.

Vance Mill to Enlarge.

The Vance Cotton Mill, Salisbury, N. C., has decided to issue preferred stock for increasing its capital sufficiently to build an addition. This addition will be a mill equipped with looms to weave the output of the company's present equipment of 10,000 spindles. E. B. Neave is the company's manager.

Completed an Installation.

The Scotland Cotton Mill, Laurinburg, N. C., has completed the installation of its 2000 additional spindles, mentioned several months ago as contracted for. This increases the company's equipment to 12,000 spindles. The Mason Machine Works of Taunton, Mass., furnished the new machinery.

Will Add 2000 Spindles.

The Lafayette (Ga.) Cotton Mills will build a slasher-room and add machinery to include 2000 spindles, 40 looms, etc. Plans and specifications have been prepared, and contracts will be awarded soon. The company is now operating 5000 spindles and 160 looms on sheeting and drills.

Planning a \$200,000 Company.

John Robison and F. J. Inglesby of the Apalache Mills, Arlington, S. C., and Lewis W. Parker of the Monaghan Mills, Greenville, S. C., are planning the organization of a \$200,000 company to build a cotton mill of 10,000 spindles at Greer, S. C.

The Berkley Knitting Mill.

George W. Simpson of Norfolk, Va., has purchased the Berkley Knitting Mill, which is equipped for manufacturing women's ribbed underwear—600 dozen articles daily. The plant is ready for operation, and Mr. Simpson offers it for lease.

Textile Notes.

Ashby Purse of Raymond, Ga., is interested in a plan to build a cotton mill.

W. L. Cantwell of Wilson, N. C., is reported as interested in a plan to establish a \$30,000 knitting mill.

Z. T. Fulmore of Austin, Texas, is interested in a plan for the organization of a company capitalized at \$10,000 to establish a hosiery mill.

The Huguenot Mill of Greenville, S. C., was sold at public auction last week and purchased at \$30,000 by H. J. Haynesworth, representing himself and J. W. Norwood and Lewis W. Parker. The mill is equipped with 6000 ring spindles and 305 narrow looms.

Leak, Wall & McRae have awarded contract to Stephenson & Son for the construction of two additional stories on Midway Mills, Rockingham, N. C. They will expend about \$8000 for building and new machinery.

The Jordan Manufacturing Co. of Wellford, S. C., will increase its capital stock and install spindles. This addition will enable the company to produce the yarns consumed by its 50 looms in weaving towels and bedspreads. Electric power is used.

The Gaffney (S. C.) Manufacturing Co. is reported as having begun the installation of the 15,000 additional spindles contemplated some months ago. This company has 63,184 ring spindles, 1160 broad looms and 406 narrow looms, manufacturing sheeting and wide print cloth.

MECHANICAL**Concrete Cotton-Oil Warehouse.**

Just completed at Savannah, Ga., is a reinforced concrete warehouse of interest because it was especially designed to meet the requirements of the cottonseed-oil industry. The warehouse belongs to the Southern Cotton Oil Co. It was designed and erected under the supervision of the company's constructing engineer, H. H. Sims, with Superintendent Jere Young in direct charge of construction details.

Much thought was devoted to designing

without reinforcement, and with a top-dressing one-half inch thick, this being given a trowel finish; entire floor is laid in five-foot sections, with trowel joints, thereby insuring safety from cracks to which pavements are so liable. The building is supported by three rows of columns, 18 feet apart lengthwise of building, and on 17½-foot centers crosswise; corner and center columns, each 16 inches square up to second floor level, have an 8x8-foot footing; outer row of columns, 14 inches square, have 6x6-foot footings; footings are all reinforced uniformly, and concrete

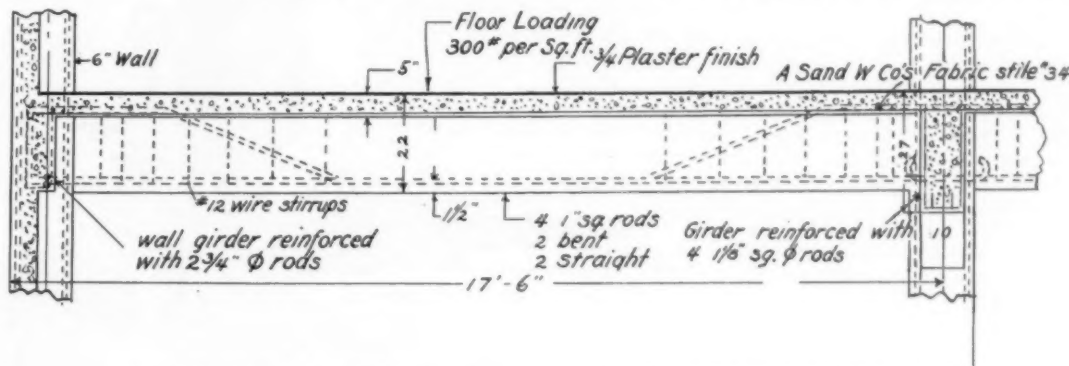
and roof, these running entire length of building; center girders for second and third floors are 10 inches wide by 27 inches deep, depth including the five-inch thickness of floor; to fully secure girders, each center column has a bracket at top extending one foot each way; wall girders are simply a four-inch protrusion of walls; roof girders are lighter, center one being 10x22 inches, and those in walls 10x20 inches. The girders are reinforced with four square rods, two straight and two bent, and all hooked at ends; the rods do not simply meet in columns, but pass each

height; construction is very simple, and wall forms were used in placing concrete. The walls of the monitor are four inches thick, and the roof is similar in construction to main roof, except that it is a single slab from wall to wall.

All concrete was handled in barrows to different parts of building and dumped from runways. When necessary to hoist concrete an elevator with automatic dump was employed. When completed the entire outside of structure, except roof, was given a thorough wash of one part cement and two parts of fine sand, which adhered perfectly to concrete and presents a creditable appearance.

The ground floor is devoted to storing and melting oleo stearine, and is divided into three compartments, separated by concrete walls. The compartments on the ends serve as warerooms, and the center one accommodates the iron tanks, pumps, etc., where the oleo is melted. The second and third floors are devoted to the cottonseed-hull department and the necessary machinery.

The general arrangement of the plant is so convenient and cleanly that it is believed to be an ideal one for its purpose. Accompanying illustrations represent the completed structure and an interior view.



SECTION OF FLOOR BEAM SHOWING AMERICAN STEEL & WIRE CO.'S REINFORCEMENT.

this structure, in order that it might serve to the best possible degree the uses to which it would be put, viz., the storing and melting of oleo stearine, used in manufacturing lard, and the handling and storing of cottonseed hulls. In this building the company believes it has secured all that could be desired in ideal facilities from the standpoint of handling and fireproofness. This latter feature was considered a most important one, because within 20 feet of the north side is a large wooden acid chamber building of the Virginia-Carolina Chemical Co., and within 30 feet on the other side several wooden structures of the Southern plant. To give the best protec-

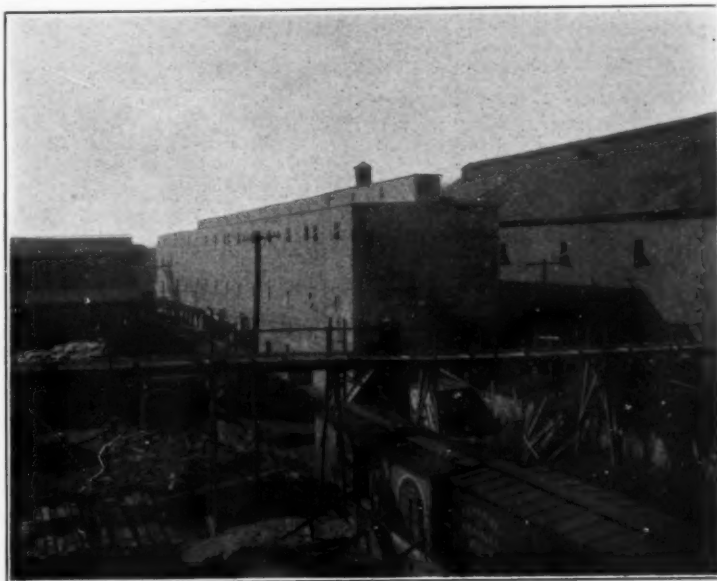
tion from fire that might originate in the Virginia-Carolina building the entire north side of the new structure was built without openings, so that it forms a barrier between the two properties. To protect the new building from any fire that might occur in the company's own wooden structures all openings on that side were supplied with standard fire doors and metal frames and sashes glazed with wire glass. The warehouse is 288 feet long, 35 feet wide and 48 feet high, there being three stories, respectively 10, 16 and 16 feet in height, surmounted by a six-foot monitor. The first floor is laid directly on the

ground, and is of concrete six inches thick is stepped in until size of column is reached at floor level. The corner columns, 16 inches square to roof, are reinforced with four one-and-one-eighth-inch round rods, looped on No. 10 steel wire, while one-inch and three-quarter-inch rods are used in center and outer columns, respectively. Short rods, from two to three feet, were first placed in footings, and long rods, which extend to top of building, were placed directly on these, being held in place by pipe sheaves. The mixture used in all columns was 1-2½-5. The forms used were built for every column on first floor, and afterwards utilized for those on other floors, being lengthened as required; cor-

other about four feet, thus insuring strength where girders join columns. In center and wall girders, second and third floors, one-and-one-eighth and one-inch rods were used, respectively, while in roof girders two one-inch and two three-quarter-inch rods were used. The mixture in all girders was 1-2½-5. The beams, on nine-foot centers throughout, are similar to girders as to mixture and forms, but are neither so wide or deep; floor beams are 8x22 inches, inclusive; second and third floors are five inches thick, and were laid simultaneously with girders and beams, the columns being poured the day preceding any floor section

Testing Wearing Qualities of Rails.

Although rails of increased durability under water have long been desired, the use of harder rails has usually been attended by so much liability to fracture that the drop testing machine has been the chief means of testing the suitability of rails for service rather than a method of depending on the resistance to wear. With the advent of the high-carbon, low-phosphorus, open-hearth steel rail and rails of special steels (manganese steel, nickel-chrome steel, etc.), which have comparatively little liability to fracture and sell at special prices in some cases, the question



SOUTHERN COTTON OIL CO.'S CONCRETE WAREHOUSE.

tion from fire that might originate in the Virginia-Carolina building the entire north side of the new structure was built without openings, so that it forms a barrier between the two properties. To protect the new building from any fire that might occur in the company's own wooden structures all openings on that side were supplied with standard fire doors and metal frames and sashes glazed with wire glass. The warehouse is 288 feet long, 35 feet wide and 48 feet high, there being three stories, respectively 10, 16 and 16 feet in height, surmounted by a six-foot monitor. The first floor is laid directly on the

ground, and is of concrete six inches thick

ners of columns were all chamfered, so that no sharp edges were left.

The walls are all six inches thick, and reinforced with one-half-inch round rods on 18-inch centers both ways. The mixture used for walls was 1-3-6. Enough wall forms were built to reach all around building, inside and out, so that an entire four-foot section of wall and outer columns was put in at one raising of forms; these forms were oiled from time to time, and the one set served for entire height of 48 feet. The average time allowed for concrete to set before loosening forms was 72 hours.

There are three girders for each floor



INTERIOR OF SOUTHERN COTTON OIL CO.'S WAREHOUSE.

laid. The mixture used for floors was 1-2½-5; they also received a top-dressing similar to ground floor; floors are all reinforced with triangular mesh wire fabric made by the American Steel & Wire Co., Chicago and New York, the method of arrangement being shown in an accompanying sketch. The roof is three and one-half inches thick, and of same mixture. A top-dressing about one-quarter or three-eighths inch was put on and floated, and as about 7 per cent. lime was added to concrete in mixing, the roof is well waterproofed; in fact, no leaks have developed after a period of two months.

The monitor is six feet wide and of same

of the relative wear in the track comes more into the foreground.

It is difficult to make comparative trials of different kinds of rails under the same track conditions, and such trials cover in most cases such long periods of time that the results when obtained are already out of date.

Recognizing the demand for a better method of testing the wearing qualities of rails, the Pennsylvania Steel Co., Philadelphia, Pa., has designed, patented and built the machine illustrated herewith. Although designed primarily to determine the relative durability under wear of different varieties of steel rails, the machine

has been developed so that it now provides means for ascertaining other valuable information not strictly relating to durability. The effects on rails and wheels of brakes and of slipping driving wheels can be observed under different conditions; the relative coefficients of adhesion for different varieties of rails measured; the relative effectiveness of various types of rail joints determined; the effect of flat-spotted car wheels on different varieties of rails observed; in fact, the usefulness of this machine and its effect on railroad maintenance are hardly yet realized.

Two 33-inch M. C. B. standard tread car wheels having independent axles are mounted in bearings on the revolving arm and carry the deal load of the arm and center steady pin. To reproduce the conditions and effects of driving wheels on a track, power is supplied directly to the wheels from the two motors mounted on the revolving arm. To reproduce the conditions of ordinary wheels power is supplied to the revolving arm by motors at the base of the machine, turning the arm through gearing attached to the center pin. The wheels are provided with air-brakes. The circular track on which the car wheels run is about 20 feet in diameter. As exhibited so far, the track is composed of three equal lengths of A. S. C. E. 100-pound section rail connected by standard fishing. The three lengths are of different varieties of rail steel, painted red, yellow and white for easy distinction. As the machine will be set up at the exhibition of the Road and Track Supply Association in the Coliseum, Chicago, March 15-20, to be held in conjunction with the meeting of the American Railway Engi-

chine is designed to operate is 85 revolutions per minute, which gives a train speed to the car wheels of 60.94 miles per hour. Intermediate speeds are used in practice to reproduce the conditions of freight or passenger traffic.

The vertical pressure exerted by each car wheel on the rail due to the dead load is 11,500 pounds; by adjusting the springs mounted above the revolving arm this can be increased by any amount up to 30,000 pounds, making the maximum vertical pressure 41,500 pounds. A ball thrust bearing between the revolving arm and the springs eliminates largely the friction due to their pressure.

As sufficient end play is allowed the axles, there is also a lateral pressure on the head of the rail, due to the centrifugal force of the wheel and axle. This varies from 450 pounds at 10 revolutions per minute for the arm to 32,800 pounds at 85 revolutions. By adjusting the spring on each axle this can be increased by any amount up to 15,000 pounds. The maximum lateral pressure, therefore, which can be exerted by each wheel varies from 15,450 pounds at 10 revolutions to 47,800 pounds at 85 revolutions per minute.

The tables of traffic over the "Horseshoe Curve" of the Pennsylvania Railroad, one of the points of greatest main line traffic congestion in the United States, show that an average of 2600 cars per day pass over each freight track at this point. This means that each rail in the track is subject to the wear from 10,400 wheels per day. A corresponding wear is given the rails on this machine, when the arm is running at 30 revolutions per minute, in less than three hours, and a week's wear

of the standard Bessemer steel rails. These rails were described in the MANUFACTURERS' RECORD of January 7.

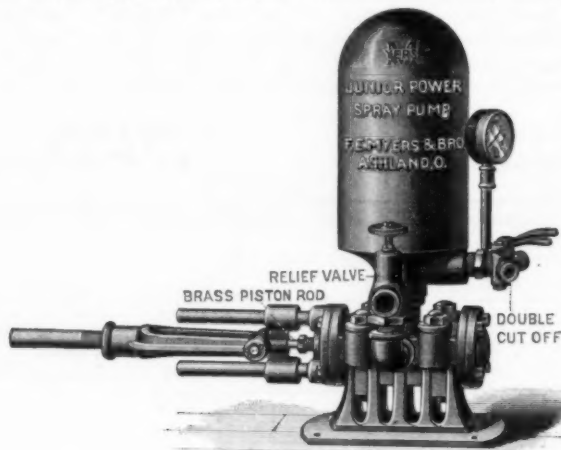
A Complete Lime Plant.

The Gager Lime & Manufacturing Co., Chattanooga, has its plant at Sherwood, Tenn., covering five acres of land. The kilns are built of steel shells lined with fire-brick. The shed, 60x250 feet, is con-

sors and air drills. In addition to this company are: B. Gager, president, and M. P. Kenney, secretary and treasurer. The general offices are at 38 Chamberlain Block, Chattanooga, Tenn.

Myers Junior Pitman Pump.

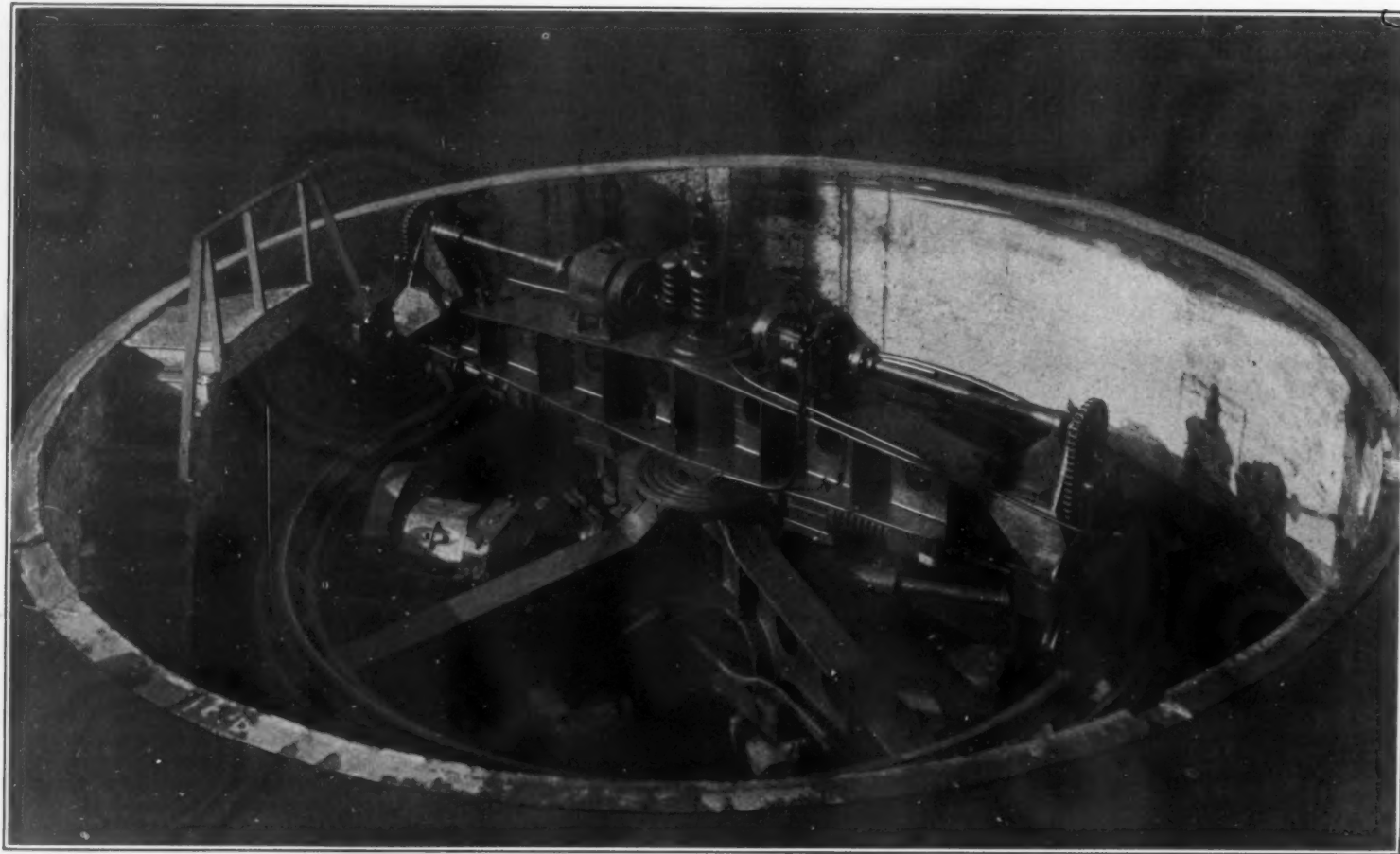
An accompanying illustration will interest people concerned in pumps that will withstand heavy duty for spraying pur-



MYERS JUNIOR PITMAN SPRAY PUMP.

structed entirely of concrete, with fire-brick floor. The gravity tramway, 1400 feet long and laid with heavy steel, is used to convey in dump cars immense quantities of lime to the tops of the kilns. The plant is equipped with modern labor-saving machinery, including a stone crusher, elevator hoists, screens where broken stone is assorted into various sizes, air compres-

poses. The machine illustrated is the Myers Junior Pitman power spray pump, manufactured by F. E. Myers & Bro., Ashland, Ohio. It has a two-inch brass-lined cylinder, ground brass seats and ground poppet valves. Valves are located on the side of the pump, and can be reached by removing the nut immediately over them. Either valve can be removed separately



PENNSYLVANIA STEEL CO.'S RAIL-TESTING MACHINE.

neering and Maintenance of Way Association, the rails will be spiked to short wooden ties, which are secured to a heavy circular cast-iron frame tied by four radial arms to the center bearing. If desired, the rails can be fastened directly to the iron frame, which is so designed that even under these conditions a slight wave motion in the rail is perceptible.

The maximum speed at which the ma-

chine is shown in less than a day. At this speed of 30 revolutions per minute the wheels are traveling at a train speed of 21½ miles per hour, which is above the average speed of a freight train on the "Horseshoe Curve."

The remarkable wearing qualities of the rolled Manard rails now being introduced by the Pennsylvania Steel Co. are well shown on this machine compared to those

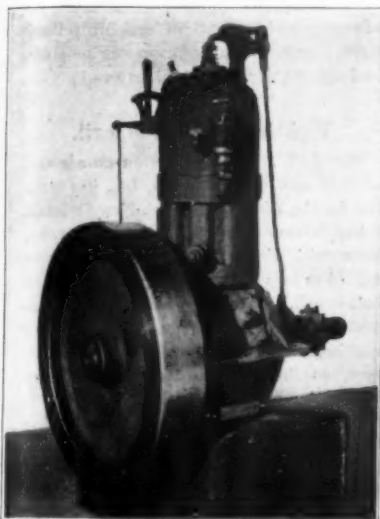
plant, the company maintains its own cooperage, equipped for the manufacture of high-grade barrels. Hardwood timber is supplied in a great variety from a contiguous tract of several thousand acres of lands. The quarries are practically inexhaustible, croppings showing an unbroken depth of 300 feet of white oolitic limestone of purity and whiteness now being worked to a depth of 70 feet. The officers of the

without disturbing the others. The plunger is hemp-packed, adapting it for pumping either hot or cold liquid. The cross-head is operated on drawn steel rods, which are attached directly to the head of the pump. The pump is fitted regularly with pressure gauge and safety relief valves. Myers & Bro. offer a varied line of pumps, descriptive literature of which can be obtained on application.

Gibbs Engine and Akerlund Producer

The Gibbs Gas Engine Co., Atlanta, Ga., manufacturer of the Gibbs gas engine and the Akerlund soft and hard-coal producer, will soon complete its Jacksonville (Fla.) plant, which will start with marine motor orders one year ahead and several producer installations under way. Describing the producer, the company says:

"The Akerlund producer is a soft-coal producer, built in large and small units. Every feature are aims to eliminate the trouble experienced with soft-coal producers that form clinkers, which have



THE GIBBS MARINE MOTOR.

made continual "poking" a necessity in order to obtain a constant supply of gas of uniform quality.

"The success of the Akerlund producer depends upon its simplicity. This simplicity makes the cost low.

"The producer is of the suction down-draft type—down-draft because this feature makes it possible to consume all the tar in the fuel bed. The suction principle prevents the escape of gas.

"The producer is built in units from 15 horse-power up. It has a simple cylindrical lining of standard fire-brick. The operation involves a minimum amount of attention and no hard labor. The fire is always in plain view of the operator, and there is an even distribution of the fuel. The design is unusually compact, without grates, and the time required for starting up is very short—never more than 20 minutes from usual lay-over conditions.

"The Akerlund producer is guaranteed to generate power constantly at the rate of one and one-quarter pounds commercial screened soft coal per horse-power per hour.

"At a recent test of a 35-horse-power Akerlund soft-coal producer at Grove City, Pa., the producer was connected to a two-cycle engine designed for natural gas and rated at 35 horse-power. To adapt the engine to producer gas it was necessary only to change the mixing valve and to increase the compression. The plant was operated for four weeks, nine hours every day; the engine developed 26 horse-power constantly, and at times the load carried was 30 horse-power. At noon several times the engine was stopped for an hour, and every time it was started and the load thrown on without having to touch the producer. This is a very remarkable producer performance. On one occasion the plant was shut down at 5 P. M. Saturday and left dormant until 4 P. M. the following Monday. During these 47 hours the producer was charged three times, 40 pounds of coal each charge. At 3.45 P. M. Monday the operator began to poke the producer and at 4 P. M. the engine was running under brake load of 28 horse-

power, only 15 minutes having been required to start the producer under full load after a lay-over of 47 hours, during which time only 120 pounds of coal had been consumed. While taking indicator cards one day the engine was stopped and started ten times within one hour under varying conditions of load. During this hour the producer received no attention whatever. In this installation there is no exhaust between producer and engine. In sizes above 50 horse-power an exhaust is used to insure even pressure in the gas line.

"The coal used in the test referred to above was Pennsylvania bituminous, run of mine." See accompanying view of the producer.

Describing the Gibbs engine, the company says:

"The primary object of the design is to place the two-cycle engine, with its comparative uniform turning moment, light weight, simple construction and ease of operation, on the basis of economy and reliability of the four-cycle motor. To accomplish this a method of scavenging the cylinder of the products of combustion is employed. Scavenging the cylinder of exploded gases with pure air before the admission of the gas is the essential principle. To utilize this principle there is provided an internal annular cup and a flanged piston, which together form a pump within the cylinder.

"In the plan view of the accompanying drawings the piston and connecting rod are removed to show the internal annular pump chamber d. The operation is:

"As piston c starts to rise the check valves e and s open; air is sucked into base, and a rich gas mixture is sucked into internal annular pump chamber d; as piston continues on upward stroke it first closes gas ports f and then air ports p. Very shortly after this the exhaust port h, operated by a cam, is closed. At this point compression begins. By the time piston has risen to a place where charge can be appropriately fired the two gases, air and rich mixture gas, have become a homogeneous mixture. As soon as piston starts to descend on its work stroke check



THE AKERLUND GAS PRODUCER.

valves at e and s close. As piston continues its downward course pure air in base and gas in annular chamber d become compressed. Just before piston uncovers air ports p exhaust port h opens, allowing hot exploded mixture in the work cylinder to escape until there is but atmospheric pressure left above piston. The air ports p are then uncovered by further downward movement of piston, and air which has been compressed in base rushes by way of by-passes q and ports p into work cylinder, driving into top part of cylinder and out of exhaust port the hot light products

of combustion. The gas ports f are then uncovered as piston continues downward, and rich gas mixture which has been compressed in annular chamber d rushes through by-passes f and ports f in work cylinder under strata of air, reinforcing scavenging effort of air.

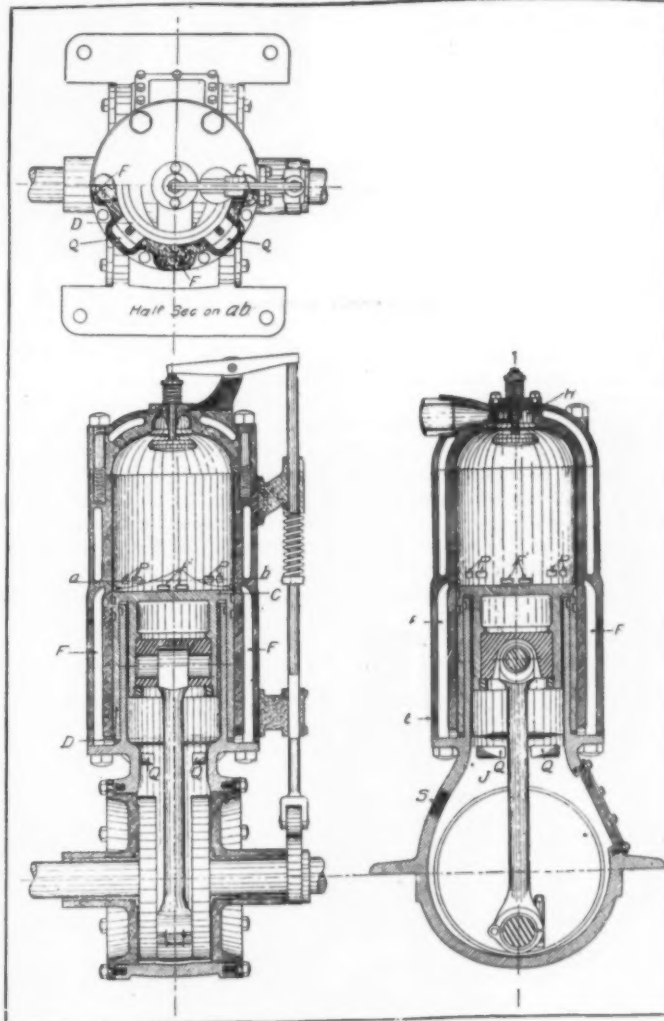
"When piston rises but a short distance above level of air ports p products of last explosion will have been completely expelled. At this point exhaust valve h is closed and next cycle begins.

"It is seen that engine differs from two-cycle engine now in general use in two main features. The exhaust port is mechanically operated and is in top part of cylinder instead of at lower part, with a valve, whose opening is a fixed function of piston movement.

"This changed form of construction is designed to assure a more perfect scavenging of engine, because hot products of combustion, on account of their low spe-

"Recent tests made by disinterested experts show that the Gibbs engine developed 23 per cent. more power than the standard two-cycle engine of the same size, while consuming only one-fourth of the fuel, and 87 per cent. more power than the standard four-cycle engine the same size, with one-half the amount of fuel.

"This engine will be built at first only in the marine type. (See accompanying view.) A stationary design is being developed, but the demand for the marine type is heavy enough to keep the first plant busy for some time. The stationary engine will not be on the market until it has been thoroughly tested to the satisfaction of the designers. It will be less complicated than any design of present practice, and its cost will be less than any high-class gas engine now offered. In connection with the Akerlund soft-coal producer this engine will bring the first cost of reliable gas-power installations down to a figure



THE GIBBS GAS ENGINE.

cific gravity, will remain above comparatively cold air and rich mixture gas used to expel them, and, therefore, be driven out of exhaust port without any serious loss of air and with absolutely no loss of rich mixture gas.

"By a proper regulation of cam operating exhaust valve and a corresponding regulation of gasoline vapor in rich mixture a relatively small amount of fuel can be taken into cylinder. The result will be great expansion of gases and increased efficiency.

"The combustible mixture during time that it performs office of scavenger, shoving products of last explosion out of cylinder, is divided into two parts, air and rich mixture gas, the inexpensive air being placed where it will bear any loss that may be caused by its diffusion with old charge, the rich moisture being absolutely blocked from its passage through exhaust port by stratum of air above it.

which will not be high in comparison with the steam plant—this without considering the saving in running expenses."

Williamson Improved Contractors' Hoist.

The Williamson improved contractors' hoist is placed on the market by its maker, the Williamson Brothers Company, Philadelphia. Its features are a design that embodies the good points of hoisting engines combined with the highest standard of workmanship and the use of best material.

This hoist evokes none but favorable comment in the trying test of piling, where the foundation is flexible and the load is constantly changing in a manner either to jam or release the friction.

As the permanency of a structure depends upon its foundation, so does the durability and efficiency of a hoisting engine depend upon its gears. The gears of

the Williamson hoist are machine-molded by the newest and most approved method, which insures absolute accuracy, and are cast in the company's own foundry from a grade of iron which years of experience has proven to be the best adapted for this class of machinery.

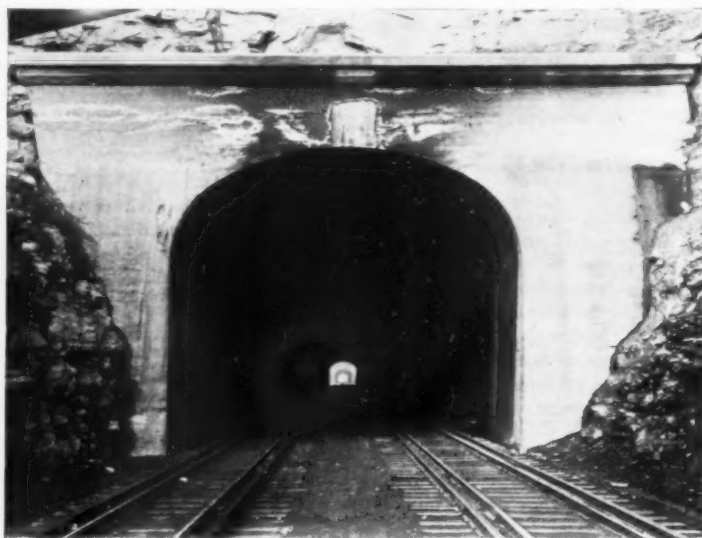
The amount of work that can be obtained from a hoist in a given time is dependent upon the interruptions chargeable to the machine. If there is none, then the work done is maximum. The design of a machine which provides convenient and ample oiling facilities provides against interruptions. This feature of the Williamson hoist has been given careful attention. The oil reservoir for lubricating the contact points on the end of the screw and the spider which takes the thrust when the drum is engaged is said to be not only larger than on other hoists, but all oil in the reservoir is available for lubrication. This is accomplished by a revolving paddle wheel on the end of the drum shaft, which lifts the oil from the reservoir and discharges it on the contact points when the oil level is below the center of the shaft. This continues as long as any oil remains.

Of equal importance with lubrication is the design of the drum and crankshaft bearings. These bearings on the Williamson hoist are dustproof surfaces. The caps are provided with a large reservoir that terminates in a projecting hub. Admission to the reservoir is through an opening on the side of the hub. This reservoir filled and the opening closed with a bit of waste gives protection in excluding the dust and a generous supply of oil that is obtained only on this hoist.

All other wearing surfaces are provided with either grease or oil cups, which obviate the necessity of frequent attention to the all-important duty of keeping moving surfaces lubricated.

The hoists are made in all sizes electric or steam, with or without boiler, and with any desired number and arrangement of

Railroad companies employ the best engineering talent, and that these men have repeatedly selected Portland cement in place of the older materials for construction of the most important character carries with it an endorsement of its value as a high class and safe structural material. In selecting the brand of cement railroad engineers exercise the greatest possible care and subject all brands submitted to the highest tests.



CONCRETE TUNNEL ON NORFOLK & WESTERN RAILWAY.

One of the most interesting uses to which Portland cement has been put in railroad work is tunnel construction. Not only is it employed in the construction of entrance portals, but also for lining the interior throughout, thereby thoroughly strengthening the tunnel and overcoming many troublesome difficulties.

During the past five years, within a distance of nine miles west of Welch, W. Va., the Norfolk & Western Railway Co. has

Western Railway Co. in its improvement work during the past five years. Two accompanying illustrations show two tunnels in which the Limestone brand was used altogether for portals and linings. One is a view of the east end of the first tunnel below Welch, photographed at a point where it is possible to look through this tunnel and the one beyond it. The second view is the east end of the second tunnel below Davy, W. Va. While the

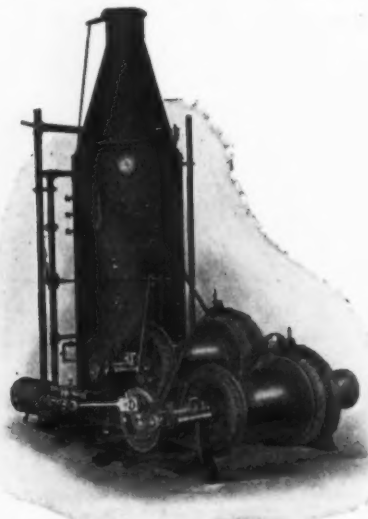
nish a means by which valuable native varieties of corn which show purity of breeding may be recognized as pure bred; to protect the farmers who desire to purchase pure-bred seed by supplying such information as will enable them to distinguish the different breeds or strains of corn, and to furnish them with the names of reliable growers; to hold an annual corn show and to further in any way possible the corn-growing interest of the State; to establish a score card or a standard of perfection for corn plants. The membership of the association is restricted to farmers actively engaged in growing corn, directly or indirectly, professors, instructors and students of agricultural colleges, members of experiment station staffs and editors of agricultural papers.

Fighting the Boll-Weevil.

Mr. J. W. Vogler, a cotton ginner and oil mill man of Alexandria, La., has written for the *Times-Democrat*, New Orleans, a lengthy communication in which he takes issue with Federal and State experts in regard to means for fighting effectively the boll-weevil. The latter, after years of investigation, advocates an early planting and harvesting of cotton and careful culture, so that the insects may not have time to increase sufficiently to be destructive. Mr. Vogler contends that by planting and harvesting late the weevils which hibernate will starve to death.

Oelrichs & Co., general agents of the North German Lloyd Steamship Co., 5 Broadway, New York, have issued a book called "Aids to Shippers," which contains a large amount of information of value to persons engaged in export business. Copies of it will be sent on request.

The Chamber of Commerce of Macon, Ga., is circulating interesting facts about its city, including the statement that within a year Macon will have cheap elec-



WILLIAMSON IMPROVED CONTRACTORS' HOIST.

drums and spools; also with a novel and efficient boom-swinging attachment where required. See accompanying illustration.

Ironton Portland Cement in Railroad Work.

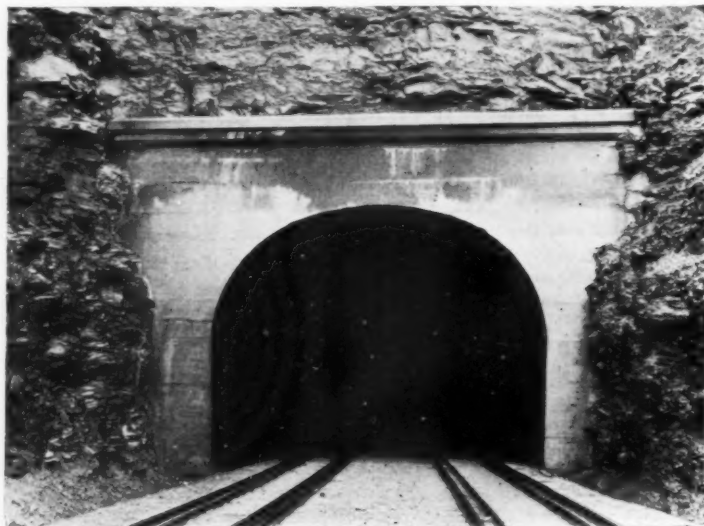
No greater tribute could be made to the adaptability and durability of Portland cement for the most important construction work than its extensive use by the leading railroads. In constructing tunnels, bridges, viaducts, retaining walls, culverts, buildings, etc., the material is now being widely adopted, and the success which has followed points to its still greater and broader use for general railroad work in the future.

constructed on its revised double-track alignment 11 crossings of the Tug River and six tunnels. The masonry for these is composed of Portland cement. The tunnels have concrete portals, and are lined throughout with concrete. They aggregate in length 4875 feet, varying from 613 to 1143 feet; inside of masonry they measure 30½ feet wide and 25½ feet high. In the construction of the tunnels alone there was used nearly 47,500 cubic yards of Portland cement concrete.

While no one brand of Portland cement was used exclusively, approximately 200,000 barrels of the Limestone brand made by the Ironton Portland Cement Co., Ironton, Ohio, have been used by the Norfolk &

interior work cannot be seen, the adaptability of this material for portal construction is evident.

The Ironton Portland Cement Co. is also supplying large quantities of cement to the United States Government for dam construction work, among these contracts being 30,000 barrels for a dam in the Kentucky River near Irvine, Ky.; 8000 barrels in the Levisa fork of the Big Sandy River near Chapman, Ky.; 8000 barrels



CONCRETE TUNNEL ON NORFOLK & WESTERN RAILWAY.

in the Tug fork branch of the Big Sandy River near Saltpetre, W. Va., and for starting a dam in the Ohio River near Gallipolis, Ohio.

Virginia Corn Growers.

A Virginia corn growers' association has been organized at Blacksburg with J. R. K. Bell of Pulaski, president; T. C. Commins of Rumford, vice-president, and Lyman Carrier, Blacksburg, secretary-treasurer. The objects of the association are: To establish improved types and breeds of corn which shall in the best possible way meet the needs of the Virginia farmers; to promote the growing of pure-bred corn throughout the State of Virginia; to fur-

trick power from a dam now under construction, which will create a lake covering six square miles and give a head of water 100 feet high.

The Gulf & Interstate Railway Co. has begun the operation of its trains in and out of Galveston, Texas, according to previously announced plans, by barge service between there and Port Bolivar. Heretofore passengers have been transferred by steamer, but now the trains are run on a barge, which is towed across the channel, and the train runs from the pier on the Galveston side to the depot.

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Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS' RECORD seems to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECT

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

BRIDGES, CULVERTS, VIADUCTS

Beaufort, N. C.—U. S. Engineer's office, Wilmington, N. C., awarded contract at \$16,317 to G. & W. Manufacturing Co., 26 Cortlandt St., New York, for construction of trough truss swing steel bridge to span Core Creek, being dredged for inlet waterway from Pamlico Sound to Beaufort; contract includes steel work, concrete abutments, pile-driving and excavating; to complete in seven months. (Recently mentioned.)

Graham, N. C.—Alamance county will construct 14 short-span reinforced-concrete bridges; bids to be opened April 5; R. L. Holt, chairman of Road Commission; Gilbert C. White, Durham, N. C., is engineer. (See "Road and Street Improvements.")

Courtland, Miss.—Panola county will construct iron bridge over Long Creek, about one mile south of Courtland; Board of Supervisors, Batesville, Miss., will receive bids at April term; R. W. Draper, clerk of board. (See "Machinery Wanted.")

Ellijay, Ga.—Glimmer county will construct double-track steel bridge across Ellijay River; structure to consist of one span of 102 feet; bids will be opened April 6; proposals will also be opened at same time for construction of two stone and cement piers or 30-inch steel tubular piers at said bridge site; T. H. Tabor, Ordinary. (See "Machinery Wanted.")

Dallas, Texas.—William Doran, City Commissioner, submitted to Board of Municipal Commissioners specifications prepared by Waddell & Harrington, St. Louis, Mo., for improvements to Zang's Boulevard bridge; specifications show that span of 150 feet may, without alterations of any kind, be adjusted with weights and towers so that it may be raised and lowered; lift to be 26½ feet above present bridges and to be raised and lowered by use of electric motor; estimated cost, about \$15,000; board ordered plans submitted to Government Engineer Waldron for approval.

Huntsville, Mo.—Standard Bridge Co., Omaha, Neb., has contract at \$10,050, to construct steel bridges in county.

Memphis, Tenn.—Kansas City & Memphis

Bridge Co. is considering widening and double-tracking bridge across Mississippi River at Memphis; Alfred Noble, constructing engineer, of New York, is now making investigations.

Norfolk, Va.—Common Council adopted ordinance passed by Board of Aldermen appropriating \$9000 for construction of bridge on Lake avenue, over Mahone's Canal.

San Antonio, Texas.—City Council is considering erection of concrete bridge to replace present Commerce-street bridge. Address The Mayor.

Starke, Fla.—Bradford county will construct steel bridge over New River, four miles from Lake Butler; length of structure, 1236 feet; bids to be opened April 5; C. L. Peck, chairman Board of County Commissioners. (See "Machinery Wanted.")

Tampa, Fla.—Board of Public Works submitted report on estimated cost of public improvements contemplated, including roller lift bridge over Hillsborough River at Lafayette street, to cost \$165,000, less street railway proportion, \$50,000; net cost, \$115,000. (Recently mentioned. See "Road and Street Improvements.")

Yorkville, S. C.—York County Commissioners will open bids on March 17 for construction of two bridges; Clem F. Gordon, Supervisor. (See "Machinery Wanted.")

CANNING AND PACKING PLANTS

Baton Rouge, La.—Baton Rouge Canning Co. organized with \$25,000 capital stock by N. K. Knox, Jr., J. D. Bogan, A. A. Landry and others.

Beebe, Ark.—Alex Davis, secretary Farmers and Truck Growers' Association, is promoting establishment of cannery.

Highfill, Ark.—Highfill Canning Co., W. E. McIntyre, president, recently reported incorporated, will establish cannery with capacity of 20,000 cans tomatoes and fruit daily; will erect \$1000 building and equip with machinery to cost \$1000.

Leola, Ark.—The Tomato & Fruit Canning Co. will build cannery.

Macon, Ga.—A. Fisher & Son contemplate establishment of cannery.

Thomas, Okla.—Thomas Canning Factory incorporated with \$7500 capital stock by W. L. McClung, B. M. Fender, E. D. Foster and others.

CLAYWORKING PLANTS

Greenville, Miss.—Greenville Cement Tile Co., recently reported incorporated with \$30,000 capital stock, will operate plant of former Southern Cement Tile Co.; manufactures cement tile; 500 cars per annum capacity; LeRoy Percy, president; H. C. Homrighous, general manager; J. H. Crouch, secretary and treasurer; company will install cement-block machine and machinery for river equipment for pumping sand. (See "Machinery Wanted.")

Montgomery, Ala.—Brick and Tile.—Maulsby & Rhodes, care Dixie Coal Co., have purchased plant of Montgomery Brick & Tile Co., recently mentioned; plant to be improved and operated.

COAL MINES AND COKE OVENS

Baird, Texas.—T. E. Powell, F. S. Bell, R. G. Powell and others are interested in plan to organize company to develop coal properties in Callahan county; have options on 25,000 acres.

Dorfee, W. Va.—Elk Manor Coal Co. incorporated with capital stock of \$100,000 by J. H. Barkman and C. C. Jackson, Osborn, Ohio; Thos. O'Hara, H. T. Kincaid and R. M. Brumbaugh, Dayton, Ohio.

Eugene, W. Va.—West Virginia Winifrede Coal Co. incorporated with capital stock of \$60,000 by W. A. Miller, Royal B. Cushing, E. C. Wood and Chas. Carrol Roe of Chicago, Ill.

Hyden, Ky.—Securities Coal & Timber Co. incorporated with \$100,000 capital stock by L. F. McGrath, Francis L. Judd, M. Glove and David Morrison, all of Cleveland, Ohio.

Merrimac, W. Va.—White Star Mining Co. incorporated with \$50,000 capital stock by John D. Sheppard, Harry Scherr, Rosa L. Wall and others, all of Williamson, W. Va.

Pineville, Ky.—The Braznell Co. incorporated with \$120,000 capital stock by A. S. Braznell, E. J. Hanlon and R. A. Braznell, all of Pittsburgh, Pa.; has secured controlling interest in Bell-Jellico Coal Co. and will continue operations of coal mines in Knox and

Bell counties; A. S. Braznell will be president, general manager and treasurer; main office is understood to be in Lexington, Ky.

Tazewell, Va.—Virginia-Tennessee Coal Co. incorporated with \$50,000 capital stock; E. M. Beasley, president; John A. Rowe, vice-president; G. M. Camp, secretary and treasurer, all of Coal Creek, Tenn.

War, W. Va.—Huddleston Coal Co. incorporated with \$25,000 capital stock by George F. Strother, J. F. Johnson, E. C. Marshall and J. A. Strother, all of Welch, W. Va., and others.

CONCRETE AND CEMENT PLANTS

Aragon, Ga.—Rockmart-Davitt Portland Cement Co., previously reported incorporated, will build plant with daily capacity of 500 barrels of Portland cement; owns 90 acres of land for development; W. F. Goldin, president; offices at Dallas, Ga.

Birmingham, Ala.—Universal Portland Cement Co. of Chicago and Pittsburg reported as contemplating construction of Portland cement plant in Birmingham district.

Manheim, P. O. Rowlesburg, W. Va.—Alpha Portland Cement Co. (general offices, Easton, Pa.) has purchased for \$500,000 plant of Buckhorn Portland Cement Co. at Manheim, and will resume operations; will install additional power and electrical machinery.

COTTON COMPRESSES AND GINS

Ballinger, Texas.—A. J. Hickerson, McGregor, Texas, will establish eight-stand cotton gin at Ballinger.

Campbell, Texas.—Double Gin Co. incorporated with \$4000 capital stock by S. P. Cowan, J. J. Jowers and T. W. Adair.

Jonesboro, Ark.—Stock company will probably be organized to establish cotton compress. Address C. B. Gregg, secretary Business Men's Club.

Kinney County, Texas.—Charles Fehlis, Redville, Texas, has purchased 1000 acres of land in Kinney county; will establish cotton gin and lay out a townsite.

Mercedes, Texas.—Mercedes Gin & Mill Co. incorporated with \$6000 capital stock by S. W. Fordyce, J. H. Zachry, S. P. Shiver and others.

Mesona, Ga.—S. M. Hall will rebuild cotton gin recently reported burned; will erect building 30x50 feet, of ordinary construction, at cost of \$750. (See "Machinery Wanted.")

Montgomery, Ala.—Chas. L. Gay, lately mentioned, states Farmers' Gin Compress & Warehouse Co. is proposed for organization; to gin cotton and compress cotton at the gin.

Stout, P. O. Winnsboro, Texas.—Verdell Vick and Vannie Casael, Shady Grove, Texas, reported to establish cotton gin at Stout.

Wetumka, Okla.—Ogletree Gin Co. incorporated with \$10,000 capital stock by G. W. Ogletree, W. D. Ogletree, S. Ogletree and J. Taylor.

COTTONSEED-OIL MILLS

Abbeville, La.—Vermillion Cotton Oil Co. incorporated with \$25,000 capital stock; Ovid A. Broussard, president; Frank A. Godchaux, vice-president; Prior B. Wright, secretary and treasurer; will manufacture cottonseed oil and by-products; has plant ready for operation.

Anderson, S. C.—Fork Township Oil Mill organized with \$25,000 capital stock by John Bleckley, J. J. Fretwell and others to operate plant of Townville oil mill recently purchased by Mr. Bleckley; plan to make improvements.

Austin, Texas.—H. F. Jones is promoting organization of company to establish eight-crusher cottonseed-oil mill.

Bamberg, S. C.—The Cotton Oil Co. reorganized and incorporated by C. F. Bamberg, W. M. Brabham, J. A. Wyman and G. M. Dickinson; authorized capital stock, \$75,000; will enlarge Bamberg plant to 40-ton two-press mill, and Denmark plant to two-press 30-ton mill; machinery purchased.

Kershaw, S. C.—Kershaw Oil Mill, John T. Stevens, president, will rebuild and equip plant recently noted burned; capacity to be increased to 80 tons; cost of rebuilding and refitting, \$25,000 to \$30,000; Fred E. Culvern, manager and secretary, to be addressed. (See "Machinery Wanted.")

ELECTRIC-LIGHT AND POWER PLANTS

Americus, Ga.—City will vote on issuance of \$40,000 of bonds to construct electric-light

plant in conjunction with municipal waterworks. Address The Mayor. (Mentioned in December.)

Atlanta, Ga.—Piedmont Electric Co., Asheville, N. C., is lowest bidder at \$12,750 for conduit and wiring system in postoffice at Atlanta; James Knox Taylor, supervising architect, Treasury Department, Washington, D. C.

Berlin, Md.—Mayor and City Council will receive bids until March 25 for construction of electric-light plant; Dodge & Day, engineers, Washington Bldg., 608 Chestnut St., Philadelphia, Pa. Previously reported as to open bids March 16. (See "Machinery Wanted.")

Brookneal, Va.—E. H. Monroe is interested in plan to organize company for construction of water-power-electric plant on Staunton River.

California, Mo.—City has voted to grant electric-light franchise to S. W. Carver, Neosho, Mo.; he proposes to purchase local electric-light plant and make improvements.

Clarksville, Va.—Southern Traction & Power Co. incorporated to build water-power-electric plant on Dan and Staunton Rivers, several miles north of Clarksville; plans to develop 20,000 horse-power for transmission by electricity to Danville, Va., Burlington, Graham and Haw River, N. C., and probably to Reidsville, N. C.; company incorporated by Julius H. Harden, secretary Burghaw Traction Co., Burlington, N. C., and associates. Address Mr. Harden.

Denton, Md.—Peninsula Light & Power Co. incorporated with \$50,000 capital stock by Thomas F. Garey, 16 East Lexington St., Baltimore, Md. (president); Albert G. Towlers and Harvey L. Cooper, both of Denton; has taken over Citizens' Light & Fuel Co. and franchise and water-power recently acquired by Mr. Garey, who proposes to develop 100 horse-power and transmit electricity to Denton. (Recently mentioned.)

Fort Worth, Texas.—City Commission will adopt ordinance providing for expenditure of \$62,635.45 for improvements to municipal electric-light plant, including installation of not less than 400 arc lights; Mr. Trammell, City Engineer.

Greenville, S. C.—Broadax Power Co. incorporated with capital stock of \$5000 by C. C. Good, W. L. Gassaway, J. G. Cunningham and T. H. Cunningham.

Greenville, Tenn.—City will expend \$15,000 of \$40,000 bond issue, recently stated to be voted on March 29, for construction or purchase of electric-light plant. J. J. Mitchell is Mayor.

Harrisonburg, Va.—City contemplates installation of dynamo to cost \$10,000 in electric-light plant; John F. Noll, superintendent.

Heber, Ark.—Heber Light & Power Co. has perfected organization with A. N. Hilger president, Howard Reed vice-president, John M. Covey secretary and C. E. Olmstead treasurer; will incorporate with \$10,000 capital stock; will install machinery capable of furnishing town of 5000 inhabitants.

Houma, La.—City awarded contract to William Watkins of Houma for erection of building for municipal electric-light plant; Anderson Offutt, E. E., 439 Carondelet St., New Orleans, La.; D. Angus, Clerk. (Recently mentioned.)

Mansfield, La.—Mansfield Ice Plant & Light Co., J. L. Logan, president, will install 100-kilowatt machine to be operated by steam; will, about May, take over municipal lighting plant recently noted; all machinery purchased.

Meridian, Miss.—City is considering construction of electric-light plant to be operated from water-works; 500 street lights to be furnished. Address The Mayor.

Minco, Okla.—City proposes to install electric-light system in connection with water-works recently mentioned; cost \$20,000 to \$25,000 for both; date of opening proposals not decided; engineers, Burns & McDonnell, Kansas City, Mo.; W. E. Showen, City Clerk.

Mount Pleasant, Tenn.—City has engaged J. G. Jackson and F. DeMarco, Mt. Pleasant, as engineers for electric-light plant, water-works and sewer system. (City recently mentioned as considering \$150,000 bond issue.)

Pensacola, Fla.—William S. Keyser will erect addition to building occupied by Pensacola Electric Co.; addition to be of brick, 20x24 feet.

Rocky Mount, Va.—Light & Power Co. of Rocky Mount will be incorporated with N. P.

Angle president, H. D. Dillard vice-president, B. L. Fisher secretary-treasurer.

Russellville, Ala.—Russellville Manufacturing & Development Co., purchaser of Russellville Ice & Coca-Cola Bottling Works, will install electric-light plant.

Sentinel, Okla.—Jennings, Barrett & Co. have franchise to build electric-light and power plant; also for ice plant; machinery not yet purchased; Frederick P. Jennings, engineer in charge. (See "Machinery Wanted.")

Spartanburg, S. C.—Electric Manufacturing Co., F. H. Knox, general manager, has secured contract to light streets for 10 years; will improve steam-power plant and use it as auxiliary plant for furnishing power and light; supply additional number of arc lights and new incandescent lights for inside lighting; improve gas plant, etc.

Wake Forest, N. C.—City will vote April 12 on issuance of \$15,000 of bonds to construct electric-light plant; Sol J. Allen, Mayor.

Woodlake (not a postoffice), Texas.—Denison & Sherman Railway Co. will build substation at Woodlake with sufficient capacity to operate street-railway systems of Denison and Sherman and Dallas & Sherman Interurban Railway; power will be supplied from McKinney (Texas) power plant of Texas Traction Co.; J. F. Strickland Company, J. F. Strickland, president, Dallas, Texas, controls Denison & Sherman Railway; Mr. Strickland also manager of Texas Traction Co.

FLOUR, FEED AND MEAL MILLS

Cleveland, Tenn.—Cleveland Milling Co. will increase capacity of plant from 50 to 100 barrels of flour.

Creedmoor, N. C.—Creedmoor Milling Co. organized by Aiken & Freeman; will establish meal mill, also manufacture hoghead staves.

Roanoke, Va.—J. H. Taylor and W. E. Howerly will establish 150-barrel roller mill.

St. Louis, Mo.—John F. Meyer of John F. Meyer Milling Co. has, it is reported, purchased site and contemplates erection of new mill.

FOUNDRY AND MACHINE PLANTS

Alexandria, Va.—Engines.—Emerson Engine Co. incorporated with \$100,000 capital stock; Victor L. Emerson, president; Harry E. Jenkins, vice-president; A. E. Emerson, secretary and treasurer; recently noted to have purchased plant of Pope-Reo Automobile Co., Hagerstown, Md.; to remove machinery to Alexandria and establish plant for manufacture of engines for automobiles and motor boats.

Anniston, Ala.—Foundry.—Central Foundry Co., main office, New York, will rebuild plant reported burned; loss about \$80,000.

Atlanta, Ga.—Stove Foundry.—D. C. Jones, 419 Empire Bldg., has purchased Mehaffy Stove Foundry and will organize company to operate.

Birmingham, Ala.—Plow Works.—Harry A. Dayton, Acton, Ill., contemplates, it is reported, establishment of plow plant in Birmingham district.

Huntsville, Ala.—Huntsville Foundry and Machine Works will erect additional building 70x120 feet and install additional equipment; planning to manufacture gasoline engines in the future; machinery purchased.

Marlinton, W. Va.—Cutter Bar.—McElwee Cutter Bar & Section Co. organized with \$10,000 capital stock; A. E. Smith, president; George W. Sharp, secretary and treasurer; will manufacture patented cutter bar.

North Birmingham, Station Birmingham, Ala.—Castings.—A. O. Kehm Casting Co., recently noted to build foundry for heavy castings, will operate with capacity of about seven or eight tons per hour blast furnace and mine castings; machinery supplied.

Reldsville, N. C.—Bending Machines.—Universal Bending Machine Co. incorporated with \$30,000 capital stock by R. J. Morrison, Cherryville, N. C., and others.

Tulsa, Okla.—Pulleys.—A. A. Small and associates will establish plant for manufacturing pulleys; will erect two buildings: 50x150 feet, one 50x100 feet, and machine shop and pattern shop.

GAS AND OIL DEVELOPMENTS

Charleston, W. Va.—Swisher Oil & Gas Co. incorporated with \$200,000 capital stock by C. W. Swisher, Ray C. Teter, M. B. Hawks and others.

Chickasha, Okla.—J. C. Smith and associates will apply for franchise to furnish city with natural gas.

Como, Texas.—Como Development Co. incorporated with \$10,000 capital stock; T. Coleman, Sulphur Springs, Texas, president;

W. H. Attaway, vice-president; B. E. Morris, secretary and treasurer, both of Como.

Galveston, Texas.—The Texas Company, main office Houston, Texas, will establish oil-distributing station at Galveston to cost about \$50,000.

Jennings, La.—Jennings Development Co. organized with \$10,000 capital stock by S. A. Spencer, F. R. Jaenke, J. A. McCorkle and others.

Muskogee, Okla.—Ebony Oil Co. incorporated with \$5000 capital stock by S. W. Patton, W. F. Boyd, both of Muskogee, and H. A. Beasley, Bartlesville, Okla.

San Antonio, Texas.—New Sutherland Springs Oil & Gas Co. incorporated with \$12,000 capital stock by H. A. Speer, J. L. Kerr and W. A. Stewart.

Wheeling, W. Va.—Natural-gas Franchise.—Virginia Oil & Gas Co., Albert M. Schenk, president, has applied for franchise to distribute natural-gas in city limits.

ICE AND COLD-STORAGE PLANTS

Alpine, Texas.—Alpine Ice & Electric Co. will erect addition and install additional heavy machinery.

Gonzales, Texas.—Stahl Bros. contemplate establishment of cold-storage plant to cost about \$7000.

Greer, S. C.—Greer Ice & Fuel Co., E. D. Green, president and treasurer, will establish eight-ton ice plant recently noted; will erect brick, metal-covered building 26x69x14 feet; machinery purchased; capital stock \$10,000. (See "Machinery Wanted.")

Heber, Ark.—Mr. Blythe, Blytheville, Ark., proposes establishment of ice and cold-storage plant at Heber.

Junction City, Ark.—Cornie Stave Co. of Junction City and Terrell, Ark., and Jonesboro, La., J. D. Proctor, president, will establish 12½-ton ice plant, to be operated in connection with stave mill; machinery purchased and construction commenced.

Kansas City, Mo.—Interstate Ice Co. will erect ice plant and stable 118x125 feet; two stories; cost about \$15,000.

New Orleans, La.—Company organized with \$200,000 capital stock by C. H. Lawrence to establish cold-storage plant.

New Orleans, La.—J. T. Taylor, New York, contemplates, it is reported, establishment of cold-storage plant at New Orleans to cost about \$800,000; planned to erect 10-story building; Stroudback & Stern reported as representing Mr. Taylor in New Orleans.

Piedmont, W. Va.—Piedmont Ice Co. incorporated with capital stock of \$25,000 by Z. T. Kilbaugh and C. D. Jenkins of Piedmont; Daniel D. Brady of Parkersburg, W. Va.; M. P. Cannon of Westport, Md., and A. Spates Brady of Fairmont, W. Va.

Sentinel, Okla.—Jennings, Barrett & Co. have franchise to build ice and electric plant; machinery not yet purchased; Frederick R. Jennings, engineer in charge. (See "Machinery Wanted.")

Waco, Texas.—Big Four Ice & Coal Co. will erect cold-storage plant; brick and concrete; 150,000 cubic feet; fireproof; insulator for cold-storage; will install ideal engines and Westinghouse generator, 35 kilowatts, direct connected; cost \$25,000.

Walhalla, S. C.—Wilson Bottling Co., Geo. L. Wilson, manager, will install three-ton ice plant; to have small refrigerating capacity; cost \$3000; machinery purchased.

IRON AND STEEL PLANTS

Bessemer, Ala.—Iron Furnace.—Tennessee Coal, Iron & Railroad Co., general offices, Woodward Bldg., Birmingham, Ala., will not at present repair furnace No. 4. (Recently incorrectly noted.)

Rome, Ga.—Iron Furnace.—Rome Furnace Co., Chattanooga, Tenn., will blow out its Rome furnace for repairs, and will probably not resume operations for 60 days.

Sheffield, Ala.—Iron Furnaces.—Sheffield Coal & Iron Co. contemplates equipping furnace plant with skip hoist, ore-storage and ore-handling machinery; New York offices at 7 Wall street.

LUMBER-MANUFACTURING PLANTS

Ashland, Va.—W. H. Perrin will establish planing mill and also manufacture sash, blinds, moldings and laths.

Bainbridge, Ga.—Babcock Bros. Lumber Co. will rebuild portion of plant reported burned; loss about \$60,000.

Barnardsville, N. C.—Barnardsville Lumber Co. incorporated with \$25,000 capital stock by John Money, T. L. Money, John Gregg and J. F. Anders.

Blenville, La.—Huie-Hodge Lumber Co., O. E. Hodge, general manager, Hodge, La., will repair and operate plant recently acquired from D. C. Richardson Lumber Co. in connection with timber and land purchased; plant to be in operation by about April 1.

Birmingham, Ala.—Kingston Planing Mill Co. incorporated with \$12,000 capital stock; L. W. Green, president; C. O. Nelson, general manager; A. Lawrenson, secretary and treasurer.

Bluefield, W. Va.—National Lumber Co. incorporated with \$10,000 capital stock by W. J. Beals, H. Kyle Eustler, W. H. Ferguson and others.

Blytheville, Ark.—Blytheville Shingle & Lumber Co., F. B. Morris, president, has plans by J. T. Ware, Paragould, Ark., for erection of saw and shingle mill at Blytheville; saw-mill 32x80 feet; shingle mill 32x40 feet; mill construction; will install saw, shingle and planing machinery; daily capacity, 60,000 shingles and 10,000 feet lumber.

Brevard, N. C.—Brevard Land & Timber Co. incorporated with \$125,000 capital stock by W. W. Zachary and others to develop timber lands and manufacture lumber. (See "Miscellaneous Enterprises.")

Chilhowie, Va.—J. W. Henniger will erect lumber mill to replace burned plant.

Clayton, Ga.—Ransom & Lomax Lumber Co. incorporated with \$50,000 capital stock by A. B. Ransom, J. W. Lomax, W. J. Cude and others, all of Nashville, Tenn.; has negotiated for 3000 acres of timber land; will establish mill.

Dallas, Texas.—Waterman Lumber Co. incorporated with \$250,000 capital stock by W. M. Waterman, J. B. Wilson, B. F. Orr and others.

Fairfax, Mo.—Fairfax Lumber Co. incorporated with \$12,000 capital stock by C. H. Waugh, J. W. Walker, G. L. Carter and others.

Fitzpatrick, W. Va.—Ritter Lumber Co. will rebuild sawmill recently reported burned; new plant to cost about \$75,000.

Frostburg, Md.—Baker Bros. will establish planing mill, drykiln and sash and door factory.

Gleason, Ark.—C. T. Edwards will manufacture sawn railroad ties; machinery supplied.

Goldboro, N. C.—Goldboro Planing Mill Co., recently reported incorporated with \$25,000 capital stock, purchased plant of Edgerton & Johnson Lumber Co.; will make improvements; manufactures North Carolina pine; H. P. Morrison, president; J. T. Swisher, vice-president and general manager; W. E. Graves, secretary and treasurer. (See "Machinery Wanted.")

Houston, Texas.—J. B. Farthing Lumber Co. incorporated with capital stock of \$25,000 by J. B. Farthing, B. F. Greenwood, N. Burton, Jr., and P. E. Bullington.

Hyden, Ky.—Securities Coal & Timber Co. incorporated with \$100,000 capital stock by L. F. McGrath, Francis L. Judd, M. Glove and David Morrison, all of Cleveland, Ohio.

Jacksonville, N. C.—Jacksonville Lumber Co. incorporated with \$100,000 capital stock by H. W. Ambrose, Jacksonville; F. E. Wilson and Alex. Wilson, Pittsburg, Pa.; no improvements to be made at present.

Jennings, La.—Houssiers-Latrielle Lumber Co. will replace drykiln reported burned with steam-heat kiln.

Meridian, Miss.—Flood-Lyons Lumber Co. incorporated with \$50,000 capital stock by Edwin A. Spinks, W. D. McBride, both of Meridian; T. M. Lyons, Shelbyville, Ky., and Byron Flood, Bagdad, Ky.

New Orleans, La.—Port Barre Lumber Co. incorporated with \$200,000 capital stock; G. J. Labarre, Joseph W. Folse, C. D. Craighead and R. Lee Riggs.

Pocahontas County, Va.—Wilson Lumber Co. of Maryland and Grose & Chaffey of West Virginia have purchased 17,248 acres of timber land estimated to cut 120,000,000 feet of lumber; will develop by logging, constructing railway and building sawmill with daily output of 100,000 feet of lumber; purchased from John T. McGraw, Grafton, W. Va.; John Alexander, Marlinton, W. Va., and others.

Port Arthur, Texas.—Port Arthur Planing Mill Co. organized with \$10,000 capital stock by A. E. Smith, W. A. Showers, Crooksville, Ohio, and J. F. Stoneburger, Orange, Texas. (Recently mentioned.)

Sherrill, Ark.—Indianapolis National Supply Co., Board of Trade Bldg., Indianapolis, Ind., has begun construction of proposed sawmill on 2000-acre tract of timber land; is now cutting and logging timber.

Shreveport, La.—Benton Lumber Co. incorporated with \$35,000 capital stock; J. B.

Brown, Pleasant Hill, La., president; R. A. Smith, Benton, La., vice-president; T. G. Roberts, Shreveport, secretary and treasurer.

Stonewall, N. C.—Hadder Mill Co. incorporated with \$25,000 capital stock by T. A. Hadder, L. C. Hadder, H. J. Kennedy and W. J. Swann.

Ten Mile, Miss.—Ten Mile Lumber Co. will rebuild plant reported burned; loss about \$75,000.

Walnut Lake, Ark.—S. P. Ladd Cypress Co. incorporated with \$120,000 capital stock; E. P. Ladd, president; R. E. Schultz, vice-president; W. B. Craft, secretary and treasurer, all of Pine Bluff, Ark.; office at Pine Bluff.

Waterford, Ala.—W. B. Mitchell Lumber Co. contemplates, it is reported, installing new circular mill, thus doubling capacity of plant.

Wilson, N. C.—W. L. Russell Shook & Lumber Co., recently reported incorporated with \$50,000 capital stock, will operate planing and box plant of 35,000 feet daily capacity; machinery installed; W. L. Russell, president; A. P. Macdonald, vice-president.

MINING

Gaffney, S. C.—Flint Hill Mining Co., recently reported incorporated, has organized with \$250,000 capital stock; L. U. Campbell, president and general manager, Gaffney; W. G. Sandoe, vice-president, Bristol, Tenn.; A. S. Brooks, treasurer, Bluefield, W. Va.; T. P. Zimmerman, secretary, Charlotte, N. C.; will install compressed-air outfit for 2000 feet.

Georgetown, S. C.—Lead, Zinc, etc.—Walter L. Church, New York, reported to have purchased at \$22,750 for development 181 acres of lead, zinc and barytes land.

Joplin, Mo.—Lead and Zinc.—Puritan Mining Co. incorporated with \$100,000 capital stock by G. G. Boyer, L. J. Reynolds, N. B. Davidson and others.

Miami, Okla.—Morning Star Mining Co. incorporated with \$10,000 capital stock by W. W. Dobson, G. W. Beck, W. L. McWilliams and others.

Mt. Pleasant, Tenn.—Phosphate.—Ruhm Mining Co. incorporated with \$25,000 capital stock by Herman Ruhm, E. L. Gregory, O. L. Dotch and others.

San Antonio, Texas.—Marble.—Jordan Marble Quarry Co. incorporated with \$100,000 capital stock by T. A. Coleman, D. J. Woodward and John Young.

Sevier County, Tenn.—Iron.—N. H. Taylor, New Market, Tenn., and associates have option on lands in Sevier county and will develop iron-ore deposits.

Sheffield, Ala.—Iron.—Sheffield Coal & Iron Co. contemplates equipping additional iron-ore mines; New York offices at 7 Wall street.

Springfield, Mo.—Lead and Zinc.—Uncle Joe Lead & Zinc Co. incorporated with \$300,000 capital stock by J. D. Lebolt, Charles D. Meyer, John Oday and others.

Vinita, Okla.—Willow Branch Mining Co. incorporated with \$24,000 capital stock by William E. Chapman, Joseph A. Gill and Addis A. Brown.

MISCELLANEOUS CONSTRUCTION WORK

Beaumont, Texas.—Wharf.—City will open bids April 6 for construction of wharf 700 feet long, estimated to cost \$41,000; J. G. Sutton, City Secretary; C. L. Scherer, City Engineer. (Recently mentioned. See "Machinery Wanted.")

Columbia, S. C.—Lake Ridgewood Amusement Co. organized with John J. Cain, president; will construct lake in connection with amusement resort. (See "Miscellaneous Enterprises.")

Gold Point (not a postoffice), La.—Levee.—Bids opened March 10 at U. S. Engineer office, Vicksburg, Miss., for construction of levee at Gold Point, on Red River, in Bossier parish, 12 miles from Shreveport; levee about 2000 feet long, 10.6 feet average height, 6-foot crown, with 2 to 1 slopes, containing approximately 21,200 yards; also about 225 cubic yards repairs to holes in old levee; to be completed within 60 days from awarding of contract.

Houston, Texas.—Wharves and Slips.—F. L. Dormant, special engineer engaged by city, is preparing plans for wharves and slips to be constructed at turning basin, for which \$150,000 bond issue was recently reported voted. (See "Sewer Construction.")

Little Rock, Ark.—Drainage.—Gerhard Morgner has prepared and submitted plan to Directors of Fourche Drainage District for drainage of Fourche Basin and reclamation of lands flooded by overflow of Fourche Bayou; plan is to divert water through

drainage canal running south of Fourche Mountain and emptying into Big Lake near Wrightsville; canal is to have minimum depth of 15 feet and width of from 60 to 70 feet, widening toward lower end; it is estimated that there will be 2,903,165 cubic yards of excavation and levee work, which, at 12.5 cents per cubic yard, will cost \$362,595; cost of installing culverts and flood gates estimated at \$1920, making total expenditure \$364,515. Mr. Morgner states that by diverting headwater and protecting against backwater from Arkansas River, about 3500 acres will be reclaimed, extending from and including Fourche Island to Fourche Dam; also protect 11,000 acres between Arkansas River and that part of Fourche extending south from Fourche to southern outlet, and make accessible 7000 acres on Fourche Mountain.

Miami, Fla.—Dock and Bulkhead.—Biscayne Bay Yacht Club is considering erection of dock and bulkhead, to cost not over \$4000; latter will be of concrete, 100x25 feet; will also lay pipes from water-works to proposed clubhouse.

New Orleans, La.—Wharves and Sheds.—Board of Port Commissioners has considered tentative plans for wharf and steel shed construction to cost about \$750,000, and arranged to invite bids so as to secure steel and other material required as soon as possible; no payments will be made until after July 1, when board will receive proceeds of \$1,000,000 bond issue; improvements will include steel shed from Jackson to Celeste street to cost \$158,000; lower steamboat shed, \$156,000; upper steamboat shed, \$153,000; wharf, \$88,000, and 6th-street wharf, \$208,000; from St. Andrew street to Jackson avenue there will be single structure, 1500 feet long by 72 feet wide; near Jackson avenue this single shed will be enlarged into double structure, addition being 80 feet wide and 400 feet long; Celeste-street shed will be enlarged by additions at each end, each to be 97x230 feet; steel shed covering upper steamboat wharf will be 100x1250 feet; lower shed will also be 100 feet wide; two sets of plans will be prepared for new steamboat landing, one to call for combination wharf with stationary 50-foot slips, while other will provide combination wharf with 35-foot adjustable inclines; latter plan is preferred; plans for 6th-street wharf will also be prepared; new sheds will cover about 4000 linear feet and will protect about 400,000 square feet of wharfage now uncovered; about 18 months will be required for completion; W. J. Hardee is City Engineer and J. F. Coleman is consulting engineer. (Lately mentioned.)

New Orleans, La.—Levee.—Bids will be opened March 16 for construction of levee from Metairie road to West End on west bank of New Basin Canal; length about 14,530 feet; Jules C. Koenig, president Board of Levee Commissioners, Orleans Levee District, Masonic Temple. (See "Machinery Wanted.")

Jacksonville, Fla., has contract for stone to be used to raise and extend North Long Island training wall and Cockspur Island training wall; contract price, \$2.07 per ton of stone in place on training wall; north training wall, extending eastward from Long Island, is to be raised from low-water to high-water mark for 1000 feet; this work is estimated to require 5400 tons of stone; Cockspur Island training wall below Quarantine Station will be raised to high-water mark for distance of one mile; it will be further raised to height of 3½ feet above mean low water for 2500 feet, and then raised 2 feet for considerable distance further; this will require 39,600 tons of stone; total cost, \$33,150; Col. Dan C. Kingman is U. S. Engineer in charge.

Shawnee, Okla.—Drainage.—Arthur Mitchell, chief engineer, Little River Drainage District No. 1, has completed proposed survey for improvement of Little River in Pottawatomie county; work to consist of about 26 miles drainage, ditch averaging 40 feet wide on base, slopes 1 to 1 and 7 to 15 feet deep; engineer now surveying for improvement of Little River in Cleveland county; date of opening bids not set; other districts being organized.

MISCELLANEOUS ENTERPRISES

Alexandria, Va.—Spring Water.—Paradise Springs Co. incorporated with \$50,000 capital stock; Mary Merwin, president, Clifton Forge, Va.; R. E. Lee, Jr., vice-president, 32 Wyatt Bldg.; E. S. Wolfe, secretary and treasurer, both of Washington, D. C.

Atlanta, Ga.—Land Development.—Charles T. Page, 211 Candler Bldg., Atlanta, and Eugene Hardendorf, Chicago, Ill., has purchased tract of land near Druid Hill containing about 700 building lots; will subdivide property into building lots.

Atlanta, Ga.—Printing.—Interstate Printing Co. incorporated with \$50,000 capital stock by Rolfe Hunt, E. Y. Clarke and others.

Baltimore, Md.—Land Development.—Estate of James Carey, Francis K. Carey, trustee, 909 Calvert Bldg., is planning development of Carey property at Wallbrook containing about 35 acres.

Austin, Texas.—Motor Cars.—Austin Motor Car Co. incorporated with \$5000 capital stock by W. W. Pitts, John R. Blocker and P. R. Schwinge.

Ballinger, Texas.—Van Pelt, Kirk & Mack incorporated with \$30,000 capital stock by A. H. Van Pelt, B. C. Kirk, Dan Van Pelt and Scott H. Mack.

Baltimore, Md.—Novelties.—Universal Machine Co. incorporated with \$50,000 capital stock by Thomas Clemmitt, Jr., 752 Dolphin St., and others.

Baltimore, Md.—Publishing.—Baltimore Advocate Publishing Co. incorporated with \$3000 capital stock by Peter G. Gibson, president of Penny Savings Bank, 1638 Pennsylvania Ave.; Harry T. Pratt, 1934 Druid Hill Ave.; W. M. Alexander, 1635 Druid Hill Ave., and others.

Baltimore, Md.—Beverages.—Aro-Pepsin Sales Co. incorporated with \$100,000 capital stock by Wm. F. Hunt, 1413 McCulloh St.; Robert T. McDowell of McDowell & Rhodes, Piper Bldg., and Wm. J. Murray.

Baltimore, Md.—Engineering and Construction.—Maryland Engineering & Construction Co. incorporated by John E. George, 257 Roland Ave.; W. Irving Walker and Peter R. Foley.

Baltimore, Md.—Boxes.—Traders' Box Co. incorporated with \$5000 capital stock by Archibald J. Thumler, Horace S. Whitman, 159 West Lanvale St., and Horace Slingluff, 134 West Lanvale St.

Bennington, Okla.—Nurseries.—E. M. Gray, Durant, Okla., owning about 540 acres of land near Bennington, will establish nursery and fruit orchard.

Birmingham, Ala.—Transfer.—Glenn Transfer Co. incorporated with William Glenn, president; E. L. Glenn, vice-president; Chas. H. Franl, secretary and treasurer.

Brevard, N. C.—Land Improvement.—Brevard Land & Timber Co., recently reported incorporated with \$125,000 capital stock by W. W. Zachary and others, has not completed organization; will purchase and develop timber lands and manufacture lumber.

Charlotte, N. C.—Fuel and Ice.—Charlotte Fuel Co. incorporated with \$10,000 capital stock by J. L. Sexton, Ed F. Black and W. L. Pugh.

Chattanooga, Tenn.—Garage.—Tennessee Automobile Co., 705 Chestnut St., incorporated with \$10,000 capital stock by H. Blacklock, R. A. Brantley, E. G. Huffaker and others to conduct garage and general automobile business.

Chattanooga, Tenn.—Automobiles.—Tennessee Automobile Co. incorporated with \$10,000 capital stock by H. Blacklock, R. A. Brantley, E. G. Huffaker and others.

Chickasha, Okla.—Mercantile.—Edwards-Moore Dry Goods Co. incorporated with \$25,000 capital stock by W. M. Edwards, W. S. Moore and F. C. Westphall.

Clarksburg, W. Va.—Plumbing.—F. C. Welch Company incorporated with \$25,000 capital stock by Frank C. Welch, Glenn B. Waters, Sarah J. Welch and others.

Columbia, S. C.—Amusement Resort.—Ridgewood Amusement Co. organized with John J. Cain, president; W. W. Abbott, vice-president; W. J. Taylor, secretary and treasurer; T. I. Weston, general manager.

Corning, Ark.—Farming.—Valley Farming Co. incorporated with capital stock of \$50,000 by J. M. Hoffman and others.

Dallas, Texas.—Land Development.—Dallas-Reeves County Development Co. incorporated with \$5000 capital stock by J. A. Connor, J. A. Fisher, E. S. Royall and others.

Fayetteville, W. Va.—Supplies.—Phipps Supply Co. incorporated with \$10,000 capital stock by C. L. Phipps, W. A. Elder, S. T. Carter and others.

Fort Worth, Texas.—Land Improvement.—Sunset Land Co. incorporated with \$40,000 capital stock by John T. McElroy, Lon M. Barkley and John W. Davis.

Fort Worth, Texas.—Land Improvement.—Hub Land Co., recently reported incorporated with \$55,000 capital stock, purchased 650 acres land adjacent to Fort Worth; contemplates development into town lots, promotion of country club, with golf links, polo grounds, etc.; N. H. Lassiter, president.

Greensboro, N. C.—Books and Stationery.—Wills Book & Stationery Co. incorporated with \$50,000 capital stock by S. Wills, R. T. Wills and J. Norman Wills.

Greenville, S. C.—Land Improvement.—City View Land Co. incorporated with \$14,000 capital stock by John K. Ragsdale, J. D. Smith, J. H. O'Neal and others.

Halls, Tenn.—Hardware and Furniture.—City Hardware & Furniture Co. incorporated with \$5000 capital stock by J. M. Rhodes, W. J. Dawes, E. A. Ferguson and others.

Holly Springs, N. C.—Land Improvement.—G. B. Alford Company incorporated with \$125,000 capital stock by G. B. Alford, G. H. Alford and Mrs. Mattie V. Utley.

Houston, Texas.—Paint, Wallpaper, etc.—Standard Paint & Wallpaper Co. incorporated with \$40,000 capital stock; J. J. Fitzpatrick, president; W. T. Flynn, assistant manager; J. D. Switzer, vice-president and general manager; J. H. Bohmfalk, secretary and treasurer.

Houston, Texas.—Land Improvement.—South End Suburban Company incorporated with \$10,000 capital stock by W. E. Richards, Guy M. Bryan, David Hannah and Sterling Myer.

Kansas City, Mo.—Automobiles.—Black Automobile Co. incorporated with \$10,000 capital stock by B. Black, A. F. Sherman and W. C. Fletcher.

Kansas City, Mo.—Plumbing, Heating, etc.—Jarvis Gas Burner, Plumbing & Heating Co. incorporated with \$50,000 capital stock by Thomas Jarvis, Hannah Jarvis and Elmer Lutz.

Kansas City, Mo.—Electrical Equipment.—American Electric Equipment Co. incorporated with \$2500 capital stock by Wm. J. Schott, C. A. Pierson and Clara Koch.

Kinney County, Texas.—Townsite.—Charles Fehlis, Reidville, Texas, will establish townsite in Kinney county. (See "Cotton Compresses and Gins.")

Lexington, Ky.—Bottling Plant.—S. J. Greenbaum Company, Louisville, Ky., has purchased 18,000 barrels of whiskey and will establish plant with capacity of 500 cases daily to bottle the whiskey.

Lonoke, Ark.—Rice Cultivation.—Leigh-Roy Rice Planting Co. incorporated with \$50,000 capital stock; A. C. Read, president, Little Rock, Ark.; Harry Leigh, vice-president; Roy Martin, secretary and treasurer, both of Lonoke.

Louisville, Ky.—Contracting.—American Water Main Cleaning & Contracting Co. incorporated by A. M. Elmer, F. O. Redford, H. A. Greenan and others.

Louisville, Ky.—Engineering.—Associated Engineering Co., recently reported incorporated, will conduct consulting, designing and construction engineering business, making specialty of appraisal work; O. G. Petersen, president; H. F. Scholtz, vice-president; Jno. H. L. Vogt, secretary and treasurer.

Macon, Ga.—Land Improvement.—Noxubee Farming Co., recently incorporated with \$25,000 capital stock, has completed organization with Lyman Carrier president; A. E. Kocher, Washington, D. C., first vice-president; Gordon E. Tower, Orono, Maine, second vice-president; M. A. Crosby, Washington, D. C., general manager; will develop alfalfa-hay farm of 1000 acres near Macon; will expend \$10,000 during next three years in improvements to farm.

Mannford, Okla.—Cotton.—Mannford Cotton Co. incorporated with \$5000 capital stock by J. H. Bellis, E. A. Smith and E. M. Bellis, all of Cushing, Okla.

Memphis, Tenn.—Land Improvement.—Parham Land Co. incorporated with \$25,000 capital stock by D. A. Fisher, Dabney M. Crump, Ernest H. Parham and others.

New Orleans, La.—Plumbing.—Municipal Plumbing Co. incorporated with \$25,000 capital stock by H. J. Roberts, Walter Albrecht and Edward V. DeHart.

New Orleans, La.—Land Improvement.—Gentilly Avenue Terrace Co. (noted in January as being organized to develop Gibraltar Realty Co.'s tract on Gentilly road) has incorporated with \$50,000 capital stock; M. A. Baccich, president; Ed A. Lafaye, vice-president; R. E. E. de Montluzin, secretary and treasurer; development has begun.

Oklahoma City, Okla.—Varris-Ginn Company incorporated with \$3000 capital stock by H. R. Varris, T. J. Ginn and J. H. Schoelmeyer.

Oklahoma City, Okla.—Automatic Shoeshining.—Automatic Shoeshining Co. incorporated with \$50,000 capital stock by Kaye W. Dawson, Frank Magidson, Bernard M. Kahn and others.

Oklahoma City, Okla.—Grading, etc.—Lindley-Kirkes Construction Co., 392 Scott-Thompson Bldg., recently reported incorporated with \$50,000 capital stock, will continue excavating, grading, etc.; no machinery needed at present; T. H. Lindley, president; M. J. Lindley, secretary-treasurer; J. E. Kirkes, vice-president and manager.

Paragould, Ark.—Land Improvement.—Bertig Land Co. incorporated with capital stock of \$1,000 by A. Bertig, L. B. Parker and others.

Portsmouth, Va.—Tinning and Plumbing.—Standard Plumbing & Tinning Co. incorporated with \$5000 capital stock; J. A. Sawyer, president; E. M. Cherry, vice-president; A. L. Cherry, secretary and treasurer.

Quannah, Texas.—Construction.—Pacific Construction Co. incorporated with \$10,000 capital stock by H. A. Nicholson, Tom Mankins, Hunter Farrell and others.

Richmond, Va.—Pleasure Resort.—Pine Beach Development Corporation incorporated with \$10,000 capital stock; Giles B. Jackson, president; Richmond; D. D. Bruce, vice-president, Philadelphia, Pa.; E. T. Hill, treasurer, Richmond.

Richmond, Va.—Cigars.—Newport Cigar Co. incorporated with \$3000 capital stock; B. L. Ayres, president; R. C. Ragland, vice-president; R. E. Campbell, secretary.

San Antonio, Texas.—Mercantile.—Higgins Company incorporated with \$50,000 capital stock by William G. Higgins, Margaret Zagorski and Albert C. Jones.

San Antonio, Texas.—Land Improvement.—Callaghan Land & Pastoral Co. incorporated with \$100,000 capital stock by C. C. Camp and others.

Sedalia, Mo.—Printing.—Botz & Sons Printing Co., recently reported incorporated, will continue printing plant; will erect two-story brick addition to building; cost \$3000; new machinery purchased and will be installed.

St. Joseph, Mo.—Engraving.—Kohn Engraving Co. incorporated with \$3500 capital stock by Hugh Kohn, Eugene Silverman and Elliott Spaulding.

St. Louis, Mo.—Contracting.—The Bridge & Structural Co. incorporated with \$10,000 capital stock by J. A. Clacker, Edward Flohr and George Grenzbach.

Sulphur Springs, Ark.—Health Resort.—W. A. Rule and Charles Sutter, both of St. Louis, Mo., will organize company to establish health resort at Sulphur Springs; propose to expend about \$200,000.

Sweetwater, Texas.—Land Development.—Leon Valley Irrigated Land Co., recently reported incorporated with \$70,000 capital stock, will make improvements in cultivation and artesian-well ditches; machinery and equipment for present use supplied; Tryon Lewis, president; M. W. McGinnis, vice-president; S. J. Alexander, secretary.

Taylorsville, N. C.—Hardware.—Alexander Hardware Co. incorporated with \$10,000 capital stock by R. L. Matheson, L. B. Patterson, L. K. Lazenby and T. J. Montgomery.

Texarkana, Ark.—Steam Laundry.—Company organized by George W. Booker, G. W. Hoover, J. H. Mays and Donald Frazer to establish steam laundry.

Towson, Md.—Fire-alarm Telegraph.—Baltimore County Commissioners will rebuild entire fire-alarm telegraph system destroyed by storm; have ordered 50 miles of copper wire; George Hartman, superintendent of system.

Tyler, Texas.—Publishing.—Courier-Times Publishing Co. incorporated with \$12,500 capital stock by T. B. Butler, J. W. Smiley and F. E. Rafferty.

Washington, D. C.—Land Improvement.—Washington Industrial Co. incorporated with \$50,000 capital stock; B. F. Hand, president; M. E. Hand, vice-president; Charles P. Sweet, 913 F St. N. W., secretary and treasurer, all of Washington.

Winston-Salem, N. C.—Garage.—Motor Company organized with Lindsay Fishel, president; John L. Gilmer, vice-president; Powell Gilmer, secretary and treasurer; will erect garage; fireproof construction.

MISCELLANEOUS MANUFACTURING PLANTS

Abbeville, La.—Cane Syrup.—Egwanulfi Manufacturing Co., R. Dozier, president, recently noted to erect additional building, will operate syrup and canning plant in connection with creamery and confectionery plant already established; necessary machinery will be installed. (See "Machinery Wanted.")

Abilene, Texas.—Tannery.—W. L. Raymond and R. H. Yates, Eldorado, Okla., are considering Abilene as location for proposed tannery, with capacity of 60,000 pounds monthly.

Atlanta, Ga.—Photographic Supplies.—Dixie Company incorporated with \$25,000 capital stock by Rolfe Hunt, C. Y. Clarke and others.

Baltimore, Md.—Fly Exterminators.—Fly Exterminator Co. incorporated with \$25,000 capital stock by Jacob Katz, Edwin H.

Brownley, Equitable Bldg., and Martin O. Benjamin, 1927 Guilford Ave.; will manufacture patented fly exterminator.

Baltimore, Md.—Confectionery.—Edwards Chocolate Co. incorporated with \$25,000 capital stock by Edward I. Husted, Forest and Callaway Aves.; John H. Hitchens, 1217 W. Lafayette Ave., and George M. Jewett.

Baltimore, Md.—Bakery.—National Biscuit Co., 203 N. Greene St., will make improvements to plant at Payson street and Pennsylvania Railroad; will erect one-story extension to present building; area of 3000 square feet; other improvements also contemplated.

Beaumont, Texas.—Oils.—United Oil & Refining Co. will make improvements to plant; will overhaul present plant, install additional machinery and erect several buildings and warehouse.

Beaumont, Texas.—Gas Plant.—Beaumont Gas Co. is having plans prepared for gas plant; capacity 600,000 feet daily; cost about \$100,000.

Birmingham, Ala.—Vending Machines.—Alabama Stamp Vending Co. incorporated with \$10,000 capital stock; H. C. Kribs, president; O. P. Atkins, secretary and treasurer; will manufacture patented machines for selling stamps.

Covington, La.—Turpentine Cups.—W. A. Hood is negotiating with Chattanooga (Tenn.) firm for establishment of plant in Covington for manufacture of patented turpentine cups.

Dallas, Texas.—Plaster, etc.—Texas Cement Plaster & Supply Co., H. A. Shannon, president, recently reported incorporated with \$40,000 capital stock to manufacture hard wall and wood-fiber plaster, plaster board, etc.; will establish plant of 100 tons daily capacity; will erect 50x100-foot fireproof warehouse costing from \$5000 to \$10,000; cost of machinery \$16,000; machinery proposals to be opened April 1. (See "Machinery Wanted.")

Dallas, Texas.—Shoes.—St. Louis (Mo.) Shoe Co. has no intention of building factory at Dallas. (Recently erroneously reported.)

DeWitt, Ark.—Rice Mill.—DeWitt Rice Milling Co. awarded contract to D. J. Hayes Construction Co., Houston, Texas, for erection of proposed rice mill; warehouse two stories; 75x150 feet; capacity 20,000 bags rough and 20,000 bags cleaned rice; main building will be four stories; 50x62 feet; both main buildings and warehouse will be covered with galvanized iron and have graveled felt roof; boiler and engine room will be brick; concrete floor; 40 x30 feet; power supplied by two water-tube boilers and one 15x36 Bates heavy-duty Corliss; estimated 325 horse-power; plant will furnish its own lighting, using 17-kilowatt dynamo connected to small engine; mill to have capacity of 600 barrels daily; cost about \$50,000.

Durant, Okla.—Brooms.—Hewitt & Hardy, Braymer, Mo., reported to establish broom factory in Durant; capacity 12,000 dozen brooms annually, in addition to many kinds of brushes, etc.

El Reno, Okla.—Brooms.—El Reno Broom Factory will enlarge plant and install patented machine for trimming and preparing broomcorn for market, saving only necessary parts for making brooms.

Enid, Okla.—Demorest Manufacturing Co. incorporated with \$25,000 capital stock by H. E. West, Albert Bowman and others.

Gadsden, Ala.—Shovels.—Southern Shovel Manufacturing Co. awarded contract to R. W. Kirby, Gadsden, for erection of shovel factory mentioned in January; main building 40x90 feet, with two wings 30x40 feet each; capacity 100 shovels daily; to be in operation within six weeks; Thomas Norris, president; Isaac Haas, vice-president; Edmund J. Marshall, treasurer; S. Marks, secretary, Box 605, Bessemer; company recently noted as Alabama Shovel Co. (See "Machinery Wanted.")

Gauley Bridge, W. Va.—Railway Supplies.—Kincaid Railway Supply Co. incorporated with \$25,000 capital stock by W. A. Miller, F. H. Miller, C. D. Conley and others.

High Point, N. C.—Glue.—United States Glue Co., St. Louis, Mo., will build, it is reported, glue factory.

Houston, Texas.—Schompf Manufacturing & Supply Co. incorporated with \$25,000 capital stock by H. A. Schompf, C. H. Minton and W. C. Richards.

Jacksonville, Fla.—Drugs.—Nelmaur Co. incorporated with \$10,000 capital stock; John P. Davis, president; Maurice Weintraub, vice-president and treasurer; H. Clotheal, secretary.

Jonesboro, Ark.—Bottling.—Jonesboro Coca-Cola Bottling Co. awarded contract to H. A. Desmeister, Jonesboro, for erection of bottling plant; two stories; brick; 25x80 feet.

Kansas City, Mo.—Stock Food.—American Stock Food Co. incorporated by M. A. O'Donnell, O. P. Stewart and H. C. Page.

Kansas City, Mo.—Bread.—Consumers' Bread Co. incorporated with \$1,000,000 capital stock by Max Oscher, D. M. Child, Henry S. Taylor and others.

Knoxville, Tenn.—Varnish.—Glidden Varnish Co., Cleveland, Ohio, contemplates establishment of plant in Knoxville.

Lafayette, La.—Sugar Refinery.—R. O. Young, P. B. Roy and P. A. Duplex are promoting establishment of \$300,000 sugar refinery.

Louisiana.—Sugar Refinery.—Hunter Canal Co., Milton, La., contemplates, it is reported, establishment of sugar refinery in connection with pumping plant on Vermilion River.

Lynchburg, Va.—Paper Boxes.—Lynchburg Paper Box Co. incorporated with \$3000 capital stock; A. T. Ewing, president; R. T. Fore, vice-president; R. C. Coleman, secretary and treasurer.

Macon, Ga.—Jewelry.—Virgin & Young incorporated with \$20,000 capital stock by J. Holt Virgin and W. H. Young.

Manchester, Va.—Distillery.—Rowan Distilling Co. incorporated with \$10,000 capital stock; L. M. Melsenheimer, president, Salisbury, N. C.; George L. Nunnally, vice-president and general manager; R. L. Mahaley, treasurer, both of Manchester.

Memphis, Tenn.—Bottling.—Pepsi-Cola Bottling Co. incorporated with \$25,000 capital stock by J. U. McKeppan, M. A. Geddie, Jas. S. Hall and others.

Mission, Texas.—Sugar Mill, etc.—Conway & Holt of La Lomita Ranch and others recently noted will probably do nothing within a year towards construction of proposed sugar mill; contemplate installing steam or producer-gas 350-horse-power 36-inch pump for irrigation purposes. (See "Machinery Wanted.")

Muskogee, Okla.—Wood Oil.—Wood Oil Co. incorporated with \$25,000 capital stock; S. T. Mallory, president; H. J. Connelly, secretary.

Newbern, N. C.—Gas Plant.—Newbern Gas Co. incorporated with \$100,000 capital stock by Wm. M. Crane, F. H. Sawyer and L. I. Moore.

New Martinsville, W. Va.—Glass.—Glass State Window Glass Co. incorporated with \$10,000 capital stock by James E. Grant, Leo L. Stender, J. E. Bartlett and others.

New Orleans, La.—Candy.—Miller Candy Co. incorporated with \$50,000 capital stock; W. Miller, president; George S. Humphreys, vice-president; Frank Bohning, treasurer.

New Orleans, La.—Boxes, Cartons, etc.—R. F. Grace Printing & Manufacturing Co., Ltd., incorporated with \$5000 capital stock by Robert F. Grace, Wm. D. Grace, Peter Weisler and others; will manufacture boxes, cartons, etc., from wood, paper, straw cardboard, etc.

New Orleans, La.—Cans.—Becker Can Co., Ltd., incorporated with \$75,000 capital stock by Charles William Becker, Marie Catherine Becker, P. H. Lorenz and others.

Norfolk, Va.—Cider and Vinegar.—Zander Company incorporated with \$25,000 capital stock; G. J. Zander, president; S. N. Woodward, vice-president; A. C. Macnair, secretary and treasurer.

Oklahoma City, Okla.—Stramoline.—Stramoline Company incorporated with \$50,000 capital stock by Frank Weaver, William H. Thomson, Robert Chowning and others.

Paducah, Ky.—Baskets.—Melvin Parkhurst, New Haven, Conn., has organized company to resume operations of Mergenthaler-Horton basket factory.

Richmond, Va.—Railway Signals and Supplies.—Richmond Railway Signal & Supply Co. incorporated with \$100,000 capital stock; J. H. Fraser, president; A. C. Fraser, vice-president, both of New York; P. B. Winston, secretary and treasurer, Minneapolis, Minn.

Richmond, Va.—Saddlery.—Cottrell Saddlery Co. incorporated with \$300,000 capital stock; C. C. Cottrell, president; J. T. Palmatary, vice-president; James W. Sharp, secretary and treasurer.

Roanoke, Va.—Bottling.—Roanoke Coca-Cola Bottling Works incorporated with \$50,000 capital stock; Henry Thompson, president, Cifax (P. O. Goodes), Va.; D. A. Riley, vice-president; T. T. Earles, secretary and treasurer, both of Roanoke.

Spartanburg, S. C.—Gas Plant.—The Electric Manufacturing & Power Co. will make improvements to gas plant. (See "Electric Light and Power Plants.")

St. Louis, Mo.—Medicines.—Salvator Remedy Co. incorporated with \$25,000 capital stock by Patrick Ahern, Arthur T. Koshowsky, Thomas Ahern and others.

St. Louis, Mo.—Mechanical Devices.—University Patent Co. incorporated with \$50,000 capital stock by Baron Adams, E. M. Luleff, James E. Baker and others.

St. Louis, Mo.—Cloaks.—Baer-Fireside Cloak Co. incorporated with \$4500 capital stock by Joseph Fireside, Roland Wolpert and Jesse A. Wolpert.

St. Louis, Mo.—Leather Goods.—Nedderhut, Motsch & Wehrkamp Manufacturing Co. incorporated with \$5000 capital stock by Albert F. Motsch, Frederick C. Nedderhut and Edward E. Wehrkamp.

Tampa, Fla.—Cigars.—Pendas & Alvarez will establish cigar factory in West Tampa; will erect building about 45x200 feet; three stories and basement.

Tarboro, N. C.—Mattresses.—Victor Mattress Factory organized; E. P. Stevens, general manager; Glasgow Evans, secretary and treasurer; will manufacture felt mattresses.

Thibodaux, La.—Sugar and Syrups.—McLeod Sugar Co., Ltd., organized with \$300,000 capital stock; Albert J. Lagarde, president; Mrs. Laura C. L. Roger, vice-president; Mrs. Nellie Foret, secretary and treasurer; principal office, Leighton Plantation.

Wheeling, W. Va.—Appliances.—Lactomode Company incorporated with \$100,000 capital stock by Alex. B. Paxton, A. G. Hubbard, G. G. Oliver and others.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Jellico, Tenn.—Louisville & Nashville Railroad Co., W. H. Courtenay, chief engineer, Louisville, Ky., will not erect shops recently reported; has completed erection of freight and passenger stations.

St. Louis, Mo.—Missouri, Kansas & Texas Railway, S. B. Fisher, consulting engineer, St. Louis, Mo., has, it is reported, perfected \$4,000,000 investment in railway terminal property in northern part of city, and will probably expend as much more for car-storage trackage and erection of freight station, latter in vicinity of Cass avenue and Main street; for trackage company is said to have secured site having frontage of 7000 feet, with width of 1500 feet on north end and 1000 feet on south side.

Weatherford, Texas.—Gulf, Colorado & Santa Fe Railway, W. E. Maxson, general superintendent, Galveston, Texas, reported to increase terminal facilities at Weatherford and erect addition to depot.

ROAD AND STREET IMPROVEMENTS

Baltimore, Md.—City will grade, curb, gutter and pave with improved paving 29th street from Huntingdon avenue to Guilford avenue, Fourth avenue from Falls road to Chestnut avenue, Chestnut avenue from Third to Fourth avenue; and grade, curb, gutter and pave with improved paving or tarred macadam Walrad avenue from Augusta avenue (Irvington) to Collins avenue, and Loudon avenue from Frederick road to Old Frederick road; bids to be opened March 17; James H. Smith, president Commissioners for Opening Streets. (See "Machinery Wanted.")

Baltimore, Md.—B. T. Fendall, City Engineer, has instructed P. Reddington's Sons, contractors, 321 St. Paul St., Baltimore, to begin vitrified brick paving on Fairmount avenue between Lakewood avenue and eastern city limits.

Benwood, W. Va.—City awarded contract to Day & Archer of Benwood for brick street paving; will lay about 1500 square yards paving and 1000 linear feet wood curb on 48th street and about 1500 square yards of paving partly on 17th street and partly on Ashland avenue; John Blake, chairman of committee on streets, alleys and grades. (Recently mentioned.)

Blountville, Tenn.—State Senate has passed bill authorizing Sullivan county to issue \$300,000 of bonds for road improvements, additional to \$100,000 previously authorized; County Court, under provisions of this measure, has authority to issue an additional \$300,000 in bonds without submitting proposition to vote of people. Address County Commissioners. (Previously mentioned.)

Charlotte, N. C.—City awarded contract to Atlantic Bitulithic Co., Mutual Bldg., Richmond, Va., for paving East avenue between College and McDowell streets with bitulithic; total cost about \$30,000, of which city will pay \$17,000.

Elkton, Md.—Cecil county will improve Corner Ketch road and Rising Sun-Principia road; bids to be opened March 12; W. H. Deshane, president Board County Commissioners. (See "Machinery Wanted.")

Elkton, Md.—Cecil county awarded contract to Cecil Construction Co. of Elkton for construction of stone road from Cecilton to Delaware State line, about two miles, at \$17,841.23, and also for stone road from Chesapeake City to St. Augustine, about two miles, at \$13,446.

Ensley, Ala.—City is considering expenditure of \$30,000 for street improvements; Avenue C, Oak street, Powell avenue, etc. Address The Mayor.

Fayetteville, Tenn.—City has asked Legislature for authority to issue \$30,000 of bonds for street and water-works improvements. Address The Mayor.

Galveston, Texas.—City will raise grade of area between 33d and 45th streets and avenue H and Broadway; bids will be invited and work will soon begin; bond issue of \$125,000 has been authorized; additional fill is estimated to require 238,726 yards of sand, costing \$71,617.80. A. T. Dickey, City Engineer.

Graham, N. C.—Road Commission of Alamance County, Graham, will open bids April 5 for building about 45 miles of macadam roads and 14 short-span reinforced concrete bridges; roads to be graded to width of about 28 feet and macadam to be about 10 feet wide; Gilbert C. White, Durham, N. C., is engineer; R. L. Holt, chairman of commission. (See "Machinery Wanted.")

Greenville, Texas.—Special committee appointed by Greenville Commercial Club decided to expend about \$10,000 for constructing roads into Greenville.

Hillsboro, Texas.—City will vote April 6 on issuance of \$4000 of bonds for street improvements. Address The Mayor.

Honey Grove, Texas.—City has voted \$7000 of bonds for street improvements. S. H. Gardner, Mayor. (Recently mentioned.)

Huntsville, Ala.—City awarded contract to Mineral Rubber Paving Co., L. T. Kavanaugh, president, Memphis, Tenn., for paving Franklin street with asphalt; contract price \$1.82 per square yard for asphalt, \$2 per yard for brick gutters and 52½ cents per running foot for curbing.

Memphis, Tenn.—City awarded contract to Mineral Rubber Paving Co., L. T. Kavanaugh, president, Memphis, for asphalt paving around Forrest Park and on Manassas street; cost about \$10,000.

Mooresville, N. C.—Iredell County Commissioners, N. B. Mills, Statesville, N. C., chairman, awarded contract to Johnston & Co., Charlotte, N. C., for construction of four miles of macadam road from Mooresville to Catawba River; C. M. Miller, Salisbury, N. C., is engineer. (Recently mentioned.)

Oxford, Miss.—Ligon & Co., Dublin, Ga., have contract to construct concrete sidewalks and graveled or macadamized streets.

Quitman, Ga.—City contemplates street improvements. Address The Mayor.

Rockville, Md.—Bethesda district has petitioned Montgomery County Commissioners to call election for voting on bond issue of \$15,000 to construct road from Glen Echo to Woodmont, about three miles; commissioners will open bids March 30 for construction of mile of Shoemaker road from Four Corners to Blair road, and for \$20,000 bond issue for construction of road from Potomac to Conduit road.

Savannah, Ga.—City opened bids and awarded contracts for granite blocks for paving mentioned recently; construction by day labor; \$10,300 to be expended; Harry W. Ilink, Director of Public Works.

Savannah, Ga.—City will pave Paulsen and Harmon streets; paving of West Broad street is also under consideration. Address The Mayor.

Seranton, Miss.—Jackson County Board of Supervisors appropriated \$5000 toward building shell road between Pascagoula and Moss Point; estimated cost \$12,000.

Tampa, Fla.—Board of Public Works submitted report on estimated cost of contemplated improvements recently mentioned and for which bonding election will be called: To complete paving now under way, \$82,500; paving in annexed territory, \$50,000; paving in old city limits, \$22,500; sewers in new territory, \$40,000; sewer in old city limits, \$10,000; roller-lift bridge over Hillsborough River at Lafayette street, \$165,000; street railway to pay \$50,000, making net cost \$115,000; municipal hospital, \$30,000; total expenditure, \$350,000.

Union Springs, Ala.—Bullock county will vote March 13 on issuance of \$100,000 of bonds for road construction; previous issue declared void. Address County Commissioners.

Vicksburg, Miss.—City is considering paving of Cherry street. Address The Mayor.

Winston-Salem, N. C.—Forsyth County Commissioners contemplate road improvements; will probably expend about \$9000.

SEWER CONSTRUCTION

Atlanta, Ga.—City will receive bids until March 12 for construction of such sewers as may be authorized during year 1909, except such sewers as may be authorized by proposed bond issue. R. M. Clayton, City Engineer. (See "Machinery Wanted.")

Barton Heights, P. O. Richmond, Va.—City has voted \$15,000 of bonds for completion of sewer and water systems. Address The Mayor.

Cedartown, Ga.—City will construct about two miles of sewers; bids to be opened April 6; J. B. Lacy, Street Commissioner; S. S. Evans, City Engineer. (See "Machinery Wanted.")

Chattanooga, Tenn.—City will construct sewer in 10th street, ranging 105 feet westward from manhole of intersection of 10th and A streets; bids opened March 9; H. F. Van Dusen, chairman Board of Public Works.

Gaffney, S. C.—City will vote March 19 on issuance of bonds for construction of sewer system. Address The Mayor.

Hillsboro, Texas.—City will vote April 6 on issuance of \$12,000 for extension of sewer system and water-works. Address The Mayor.

Houston, Texas.—City has engaged F. L. Dormant as special engineer to prepare plans for various municipal improvements recently mentioned, including storm and sanitary sewer construction; \$225,000 of bonds for each have been voted; H. B. Rice, Mayor, will not invite bids until plans for all have been completed, but it is expected that this can be done within 60 days; T. C. Tarver, City Engineer.

Louisville, Ky.—Commissioners of Sewerage, Equitable Bldg., will open proposals March 26 for construction of sewer known as Section G of southern outfall sewer, contract No. 29; reinforced concrete sewer of three sizes—7 feet, 10 feet, and 7 feet 8 inches diameter; total length, 4061 feet, and from 16 to 33 feet deep; 3700 cubic yards of concrete and 300,000 pounds of steel; plans and specifications at offices of Commissioners and of Harrison P. Eddy, consulting engineer, 14 Beacon St., Boston, Mass. (See "Machinery Wanted.")

Moultrie, Ga.—City's proposed sewer improvements will include about seven miles of 8-inch, 10-inch and 12-inch sewer pipe; H. S. Jaundon, Savannah, Ga., engineer in charge, has prepared plans. (City lately noted as to vote on \$50,000 bonds for extension of water mains, sewers and streets.

Mt. Pleasant, Tenn.—City has engaged J. G. Jackson and F. DeMarco of Mt. Pleasant as engineers for sewer system, water-works and electric-light plant. (City recently mentioned as considering \$150,000 bond issue.)

Oakland, Md.—Mayor and Council will receive bids until March 23 for construction of water-works system; Penniman & Fairly, engineers, Marine Bank Bldg., Baltimore, Md.; Truman West, Mayor. (See "Machinery Wanted.")

Rocky Mount, Va.—City will construct sewer system. Address The Mayor.

San Antonio, Texas.—A. C. Pancoast, assistant City Engineer, has completed plans and specifications for sewer construction in Prospect Hill Improvement District, for which \$45,000 of bonds have been voted; plans call for construction of 11.2 miles of sewers, piping ranging from 8 to 22 inches; 145 manholes and 20 combination manholes and flush tanks; viaduct over Alazan Creek to have 150 feet of 18-inch steel sewer pipe. (Mentioned in January.)

Tampa, Fla.—Board of Public Works has submitted report on estimated cost of public improvements contemplated and for which bond election will be called: Sewers in new territory, \$40,000; sewers in old city limits, \$10,000. (Recently mentioned. See "Road and Street Improvements.")

Uvalde, Texas.—City is considering construction of sewer system. Address The Mayor.

Waurika, Okla.—City has voted \$9000 for extension of sewer system. Address The Mayor.

Winchester, Va.—City will open bids March 25 for construction of system of sanitary sewers and intermittent filtration plant; N. Wilson Davis, engineer, Harrisonburg, Va.; Shirely Carter, chairman of Sewerage Commission (\$50,000 bond issue recently reported voted for construction of eight-mile sewer system, with disposal plant).

TELEPHONE SYSTEMS

Baltimore, Md.—Chesapeake & Potomac Telephone Co., 6 Light St., will build branch exchange at Guilford avenue and 31st street; site, 50x100 feet; building to be two or three stories; fireproof construction.

Chattanooga, Tenn.—East Tennessee Telephone Co. will expend about \$65,000 for improvements to system in Chattanooga and suburbs, including cable from local exchange to St. Elmo, and from there to Lookout Mountain; capacity of 200 pairs of wires, enabling them to carry 200 additional lines; another 200-pair cable will be extended to Hill City; from Hill City cable line will be extended to Walden's Ridge and branch exchange will be installed there; J. R. Porter, local manager.

Dallas, Texas.—Dallas Telephone Co. will erect exchange building; three stories and basement; 95x50 feet; cost \$35,000.

Fairview, W. Va.—Proctor & Peabody Telephone Co. incorporated with capital stock of \$5000 by E. R. Parsons, Albert Garner and J. M. Wells of Proctor, C. U. Ramsey of Woodlands, W. Va., and E. C. Yoho of Welcome, W. Va.

Fredericksburg, Va.—Potomac & Rappahannock Telephone Co. will construct telephone line from Colonial Beach to Fredericksburg and complete line from Montross, Va.

Gibson, Okla.—Sims-Renner Telephone Co. incorporated with \$5000 capital stock by J. W. Sims, Gibson; W. S. Kinnert, W. A. Renner and J. H. Renner, all of Looney, Okla.

Hobart, Okla.—Southern Rural Telephone Co. incorporated by Charles F. Nailer, J. M. Humbert, John Forsyth and A. R. Forman.

Lacey, Okla.—Lacey & Western Telephone Co. incorporated with \$3000 capital stock by W. S. Kinnert, J. A. Kinnert, T. E. Wilson, all of Lacey, and J. D. Patton, Hennessey, Okla.

Lagrange, Ga.—City granted franchise to Southern Bell Telephone & Telegraph Co., main office, Atlanta, Ga., to operate telephone system in Lagrange; company will purchase Lagrange Telephone Co. and expend \$15,000 to install common battery system and make other improvements.

Lexington, N. C.—Company organized by C. F. Koontz, G. M. Thompson, Baxter Leonard and others to construct telephone line from Lexington to Tyra, and probably to Spencer, N. C.; metallic circuit.

Orange, Texas.—Southwestern Telephone & Telegraph Co. will install new plant and exchange at Orange; capacity, 800 phones; common battery or central-energy system; cost about \$15,000.

Taloga, Okla.—Taloga & Dewey County Telephone Co. incorporated with \$5000 capital stock by W. B. Wixon, Pearl Wilson and others.

Wakefield, Va.—People's Telephone Co., recently reported incorporated with \$4000 capital stock, J. A. Brittle, president, will construct about 20 miles local and rural telephone line. (See "Machinery Wanted.")

TEXTILE MILLS

Anderson, S. C.—Cotton Cloth.—Cox Manufacturing Co. contemplates adding looms for cloth production; now operates 25,000 ring spindles.

Austin, Texas.—Hosiery.—Z. T. Fulmore interested in plan to organize company with capital stock of \$10,000 to establish hosiery mill.

Ball Ground, Ga.—Duck, etc.—Ball Ground Cotton Mills reorganized and will resume construction of plant reported a year ago; main building to be 75x250 feet, two stories high; steam-power plant, warehouse, etc.; previously reported as to install 10,000 spindles and 300 looms, producing denims and duck; Frederick A. Abbott, president.

Chester, S. C.—Ginghams and Yarns.—Leroy Springs, Lancaster, S. C., president of Eureka Cotton Mills and Springstein Mills, reported as to improve those plants, transferring the 500 Springstein looms to Eureka plant and installing new looms in Springstein. He states he has not completed his plans.

Creedmoor, N. C.—Hosiery.—Standard Hosiery Mill Co. incorporated with \$50,000 capital stock, \$4000 paid in, by W. B. Lasley, L. V. Pearce and W. P. Cozart of Creedmoor; R. W. Gray of China Grove, N. C., and P. R. Cost of Redwood, N. C.; will install gasoline engine and 20 knitting machines. (Lately referred to.)

Gaffney, S. C.—Sheetings, etc.—Gaffney Manufacturing Co. reported as having begun installation of 15,000 additional spindles reported last year as contemplated; has 63,184 spindles and 1566 looms, producing sheetings and wide print cloth.

Greenville, S. C.—Cotton Cloth.—H. J. L. Aynesworth, J. W. Norwood and Lewis W. Parker have purchased Huguenot Mills, equipped with 6000 ring spindles, 365 narrow looms, etc.; purchase price, \$30,000.

Greer, S. C.—Cotton Yarns.—John Robinson

and F. J. Inglesby, Arlington, S. C., and Lewis W. Parker, Greenville, S. C., and others plan organization of \$200,000 company to build 10,000-spindle yarn mill.

Lafayette, Ga.—Sheeting, etc.—Lafayette Cotton Mills will build slasher-room and will add 2000 spindles, 40 looms, etc.; plans and specifications have been prepared; present equipment, 5000 spindles and 160 looms.

Raymond, Ga.—Ashby Purse interested in plan to build cotton mill.

Rockingham, N. C.—Ticking, etc.—Leak, Wall & McRae have let contract to Stephenson & Son, Rockingham, for enlargement of Midway Mills; will add two stories, 30x50 feet, to present building; about \$8000 cost of building and new machinery; now operate 8000 ring spindles and 200 looms.

Salisbury, N. C.—Cotton Cloth.—Vance Cotton Mill will increase capital to build addition equipped with looms to weave output of present equipment of 10,000 ring spindles; E. B. Neave, manager.

Smithfield, N. C.—Cotton Yarns.—Ivanhoe Manufacturing Co., reported incorporated recently with \$300,000 capital stock, has organized; W. M. Sanders, president; F. K. Broadhurst, secretary-treasurer; now planning to erect building and install 5000 spindles, etc., for yarn production.

Wellford, S. C.—Towels, etc.—Jordan Manufacturing Co. will increase capital stock and install spindles for producing yarns to supply present equipment of 50 looms; will use mill waste for yarns; operates by electric-power; now manufactures towels and spreads.

Wilson, N. C.—Knit Goods.—W. L. Cantwell reported interested in plan to establish \$30,000 knitting mill.

WATER-WORKS

Barlia, Md.—Mayor and Council will receive bids until March 25 for construction of water-works system; Dodge & Day, engineers, Washington Bldg., 608 Chestnut St., Philadelphia, Pa. Previously reported as to open bids March 16. (See "Machinery Wanted.")

Barton Heights, P. O. Richmond, Va.—City has voted \$15,000 of bonds for completion of water and sewerage systems. Address The Mayor. (Recently mentioned.)

Brownwood, Texas.—City awarded contract to Hood & Staggs (probably of Brownwood) at \$4400 for building pump station at city water-works; structure to be of brick; foundation to be raised to height of six feet and filled in, in order that concrete floors can be used.

Eufaula, Ala.—City will construct settling basin for municipal water-works; water committee will recommend appropriation of about \$2000. Address The Mayor.

Fayetteville, Tenn.—City has introduced bill in Legislature asking for authority to issue \$30,000 of bonds for water-works and street improvements. Address The Mayor.

Gaffney, S. C.—City will vote March 19 on issuance of bonds to extend and improve water-works system. Address The Mayor.

Glasgow, Mo.—City has voted \$9000 of bonds for extension and improvement of water-works. Address The Mayor.

Greenville, Tenn.—City will expend \$25,000 of \$40,000 bond issue, recently mentioned to be voted on March 29, for construction of water-works; J. J. Mitchell, Mayor.

Hillsboro, Texas.—City will vote April 6 on issuance of \$12,000 of bonds for improvement and extension of water-works and sewer system. Address The Mayor.

Houston, Texas.—F. L. Dormant, special engineer employed by city, is preparing plans for various municipal improvements, including extension of water mains, for which \$100,000 of bonds have been voted as recently stated; T. C. Tarver, City Engineer. (See "Sewer Construction.")

Moultrie, Ga.—City's proposed water-works improvements will consist of water tower and tank; tank to be 22x28 feet, 100,000-gallon capacity, with trestle 125 feet high; 1700 feet 6-inch cast-iron water mains, 40 fire hydrants, 30 valves, 30 valve boxes, compound fire pump and about 1000 feet of 8-inch water mains; H. S. Jaudon, Savannah, Ga., engineer in charge, has prepared plans. (City lately noted as to vote on \$50,000 bonds for water-works improvement, sewers and streets.)

Mt. Pleasant, Tenn.—City has engaged J. G. Jackson and F. DeMarco, Mt. Pleasant, as engineers for water-works, electric-light plant and sewer system. (City recently mentioned as considering bond issue of \$150,000.)

Oak Cliff, Station A, Dallas, Texas.—C. W. Olcott of Dallas has contract at \$1101 for laying water mains in Oak Cliff.

Oakland, Md.—Mayor and Council will receive bids until March 29 for the construction of water-works; Penniman & Fairly, engineers, Marine Bank Bldg., Baltimore, Md.; Truman West, Mayor. (See "Machinery Wanted.")

Rocky Mount, Va.—City will construct water-works. Address The Mayor.

Rotan, Texas.—Charles Hamilton, general manager Texas Central Railroad, Waco, Texas, will, it is reported, construct water-works at Rotan.

Tulsa, Okla.—City opened bids March 8 for furnishing and erecting 4,000,000-gallon horizontal compound crank and flywheel pumping engine and 4,000,000-gallon horizontal cross-compound pumping engine with flywheel between steam and water ends; E. B. Cline, City Auditor. (Previously mentioned.)

Walkersville, Md.—Walkersville Water Co. incorporated with \$30,000 capital stock by Brooke I. Jamison, Lincoln G. Dineerman, John D. Nicodemus, Jacob L. Crum and others.

Waurika, Okla.—City has voted \$25,000 of bonds for extension of water-works and \$5000 for larger wells for water supply. Address The Mayor.

WOODWORKING PLANTS

Bainbridge, Ga.—Babcock Bros. Lumber Co.'s plant partially destroyed; loss about \$60,000.

Baltimore, Md.—Carriages.—King-Hosbach Company incorporated with \$100,000 capital stock by James King, Chas. E. Hosbach, both of James King & Co., 4-14 North High St.; Frederick W. Amendt, Jr., 2008 East Lanvale St., and others.

Blowing Rock, N. C.—Pipe Block.—Southern Pipe Block Co., W. C. Greene, manager, will establish plant to manufacture laurel-burl pipe block; daily capacity, 100 gross; will erect plain frame building of mill construction and install circular 20-inch saws and other necessary machinery.

Creedmoor, N. C.—Staves.—Creedmoor Milling Co. organized by Aiken & Freeman; will manufacture hoghead staves and meal.

Fort Worth, Texas.—Furniture.—Hartshorn Bros. will rebuild furniture plant reported burned; loss about \$12,000.

Frostburg, Md.—Sash and Doors.—Baker Bros. will establish sash and door factory. (See "Lumber-Manufacturing Plants.")

Houston, Miss.—Staves.—Houston Stave Co. incorporated with \$10,000 capital stock by N. J. Soule, G. A. Soule and others.

Houston, Texas.—Sash, Doors and Blinds.—Hafner & Lothman Company, St. Louis, Mo., will, it is reported, establish plant in Bruner (suburb) for manufacturing sash, doors and blinds.

New Madrid, Mo.—Barrels, etc.—New Madrid Coopers Co. incorporated with \$5000 capital stock by A. B. Fisher, W. G. Granel and D. G. Sharp.

Savannah, Ga.—Boxes.—Southern Box & Lumber Co., recently noted organized, has been incorporated with \$150,000 capital stock by A. W. Morehouse and M. E. Meyers, both of Savannah, and Cushing Adams of New Hampshire; has taken over box department of Morehouse Manufacturing Co. and purchased Eagle Manufacturing Co.; will install twin band resaw with capacity of 40,000 feet daily, board measure; will overhaul machinery and install cement floors under mill shed; output to be two to four cars daily of boxes and resaw lumber.

BURNED

Anniston, Ala.—W. E. Box's residence on Ledbetter Highlands; loss about \$3000.

Anniston, Ala.—Central Foundry Co.'s plant; loss about \$60,000; main office, New York.

Crowley, La.—A. Kaplan's warehouse; loss about \$6000.

Dalingerfield, Texas.—W. T. Connor, Sr.'s, residence; loss about \$10,000.

Denham Springs, La.—Denham Springs Hotel; loss about \$4500.

Durham, N. C.—V. S. Bryant will erect residence.

Eagle Lake, Texas.—Eagle Lake Water, Light & Gin Co.'s plant.

Fayetteville, Tenn.—Morgan School's boys' dormitory and dining hall; loss about \$3000.

Fort Worth, Texas.—Hartshorn Bros.' furniture plant, loss about \$12,000; Sandegard Grocery Co.'s warehouse; loss about \$4000.

Houston, Texas.—Lumbermen's National Bank Building damaged; H. C. Price, owner; loss about \$10,000.

Huntington, W. Va.—C. A. McClann's residence; loss about \$10,000.

Jennings, La.—Houssiere-Latrielle Lumber Co.'s dryklln.

New Orleans, La.—Building owned by Henderson estate, M. C. McCartney, Louisville, Ky., representative, occupied by Empire Theater and French Novelty Co.; loss \$500.

North Augusta, S. C.—Town Hall. Address The Mayor.

Pond Creek, Okla.—Johnston & Gratton's mill and elevator; loss about \$15,000.

Rehobeth, S. C.—C. C. Burkhalter and R. E. Winn's store building; loss about \$10,000.

Rock Hill, S. C.—Rock Hill Bottling Works, owned by S. H. Sowell, loss about \$500; Coca-Cola Bottling Works, managed by Mr. Bradley.

Rome, Ga.—W. S. McLendon's residence and W. L. Graves' residence; loss about \$900.

Roscoe, Texas.—Farmers' Gin Co.'s cotton gin.

Savannah, Ga.—Joint ice plants of W. W. Ainar and Warsaw Ice & Light Co.; loss about \$30,000.

Smith Mills, Ky.—Smith Mills Coal & Mining Co.'s coal tippie and shaft; loss about \$10,000.

Springfield, Tenn.—Association tobacco prize-house, conducted by John W. Huffman; loss about \$1500.

St. Louis, Mo.—L. Landau & Co.'s wholesale grocery store; loss about \$80,000.

Tennille, Miss.—Tennille Lumber Co.'s plant; loss about \$75,000.

Vicksburg, Miss.—J. M. Dutton's foundry; loss about \$20,000; Alabama & Vicksburg Railway's stockyard sheds, A. A. Woods, resident engineer.

Wampoo, Ark.—G. W. Caruth's cotton gin; loss \$5000.

Washington, D. C.—Frederick Brackett's residence at 1203 Girard street N. W.; loss about \$5000.

Wrightdale, P. O. Wendell, N. C.—Charles and John Horton's sawmill and cotton gin.

DAMAGED BY STORM

Baltimore, Md.—Snowstorm damages in and around Baltimore estimated as follows: Western Union Telegraph Co. (Baltimore office, Equitable Bldg.; main office, New York), \$500,000; Postal Telegraph Co. (Baltimore office, Continental Bldg.; main office, New York), \$100,000; American Telephone & Telegraph Co. (main office, New York), \$100,000; Chesapeake & Potomac Telephone Co. (main office, 5 Light St.), \$75,000; Maryland Telephone Co. (main office, Lexington and Courtland Sts.), \$25,000; Pennsylvania Railroad, block system (Baltimore office, Calvert and Baltimore Sts.; main office, Broad Street Station, Philadelphia), \$100,000; Washington, Baltimore & Annapolis Electric Railway (main office, 108 North Liberty St.), \$10,000; Consolidated Gas & Electric Co. (main office, Lexington and Liberty Sts.), \$100,000; United Railways & Electric Co. (office, Continental Bldg.), \$25,000; Baltimore County Water & Electric Co. (main office, 411 East Baltimore St.), \$10,000; Baltimore County fire alarm system, \$10,000; George Hartman, engineer in charge, Towson, Md.

BUILDING NOTES

APARTMENT-HOUSES

Alexandria, Va.—Company will be incorporated with \$30,000 to remodel building at King and Alfred streets as apartment-house; A. S. Doniphan, president and general manager; plans have been drawn.

Anniston, Ala.—Mrs. S. L. Chaddock will erect 20-apartment house; 82x90 feet; brick veneered; plumbing and electrical work by Alabama Plumbing & Electric Co. of Anniston; day labor.

Atlanta, Ga.—E. W. Alfriend purchased site 100x400 feet, on which to erect bachelor apartment house to cost about \$100,000.

Atlanta, Ga.—Albert Howell, Jr., will select plans from competitive designs furnished by local architects for 10-story apartment-house recently mentioned; estimated cost \$200,000; reinforced-concrete fireproof structure; steam or hot-water heat; electric lighting; 2 passenger and one freight elevators; cold-storage equipment; date of opening bids not fixed; no prices required until plans are selected.

Atlanta, Ga.—Charles H. Black and Austell Thornton will erect bachelor apartment-house; four stories; stone front; cost about \$50,000.

Chattanooga, Tenn.—Mrs. Agnes H. Herbert purchased site, 30x140 feet, on which, it is reported, apartment-house will be erected.

Columbia, S. C.—Consolidated Holding Co. will erect two-story building, to contain four stores on first floor and two flats above; construction to be under direction of Jno. J. Cain.

Galveston, Texas.—William L. Bradford, Oklahoma City, Okla., reported as contemplating erection of three or four apartment-houses, three or four stories high, at Galveston.

Memphis, Tenn.—Memphis Building Co. will erect apartment-house for C. Passaro; structure to be two stories; brick, metal and gravel roof; contain 20 rooms; cost \$7500.

Nashville, Tenn.—J. W. Blair awarded contract to local contractor for erection of apartment-house recently noted; plans by Thompson, Asmus & Norton, Nashville; fireproof structure; 21 apartments; steam heat; cost \$35,000.

Nashville, Tenn.—John L. Kennedy, Jr., will erect apartment-house; six apartments, each of five rooms and reception hall; each apartment to have front and rear porches, and be equipped with refrigerators, gas ranges, enclucators and call tubes to basement, etc.; dining-rooms to be finished in beam panel ceilings; bathrooms to be tiled; hardwood flooring and finish to be used elsewhere in building; laundry in basement; main entrance hallway 15x24 feet, to be laid in tile and hardwood; steam heat.

Norfolk, Va.—S. S. Dear awarded contract to Lenoir & East, 616 Law Bldg., Norfolk, for erection of \$12,000 apartment-house; 4x72 feet; brick and stone; ordinary construction; steam heat; electric lighting. (Recently noted under "Dwellings.")

Savannah, Ga.—H. O. Young will erect three two-story frame apartment-houses.

St. Louis, Mo.—Max P. Pufes, president Pufes-Ganz Cloak Co., will erect apartment house to cost \$75,000.

BANK AND OFFICE BUILDINGS

Baltimore, Md.—Dime Savings Bank, Clinton O. Richardson, president, 28 West Lexington St., is having plans prepared by Mottu & White, 611 Professional Bldg., Baltimore, for remodeling three-story building, 18x30 feet, at 110 West Lexington street, for banking purposes.

Beaumont, Texas.—Wells-Fargo & Co., 51 Broadway, New York, awarded contract to James Shapley & Sons, Houston, Texas, for erection of depot office building at Beaumont; one story; brick; cost \$5000; J. R. Loosen of Houston will superintend erection. (Recently mentioned.)

Baltimore, Md.—Baldwin & Pennington, 330 N. Charles St., Baltimore, have nearly completed plans for addition to be erected to Fidelity & Deposit Co.'s building at Charles and Lexington streets; structure will be either 12 or 14 stories; same kind of granite as present building; brick will be used in walls, but frame will be of steel construction, making it fireproof; six elevators will be installed; cost about \$500,000. (Previously mentioned.)

Cleveland, Tenn.—Cleveland National Bank will erect brick and cast-iron addition to bank building; composition roof; tile and maple flooring; steel ceiling; enlarge steam-heating plant; build two-story steel-lined reinforced vault; plans by Chas. E. Bearden, Chamberlain Bldg., Chattanooga, to be ready within few days, when architect will receive proposals; contract for new fixtures to be awarded by bank.

Columbia, S. C.—North Carolina Mutual and Provident Association will erect office building; two or three stories; brick and stone.

Corsicana, Texas.—First State Bank of Corsicana awarded contract for erection of one-story brick building at Elmhouse, to be occupied by State Bank.

Edgemont, Ark.—Edgemont Bank awarded contract to E. Bradbury, Edgemont, for erection of two-story brick building recently mentioned; bank on first floor; Masonic hall above; ordinary construction; size 25x70 feet; cost \$25,000.

Enid, Okla.—J. B. Ferguson of Garfield Bank will erect bank building.

Hendersonville, N. C.—Dr. A. B. Drafts awarded contract to Henry Jordan of Hendersonville for erection of office building; pressed brick and stone; cost about \$4000.

Little Rock, Ark.—Exchange National Bank has had plans prepared by W. S. White and John Galsford, architects, Cotton Exchange Bldg., Memphis, Tenn., for 11-story office building to cost about \$250,000; Mr. White is superintendent; bids will be opened about middle of April.

Madisonville, Texas.—Farmers' State Bank will erect brick bank building.

Meridian, Miss.—Mt. Baxter Lodge, No. 13, Knights of Pythias, will erect six-story building to cost \$80,000; for lodgerooms, stores and offices; architect not selected. (See "Miscellaneous Structures.")

Milton, Fla.—First National Bank had plans prepared by Jongk & Putnam, Birmingham, Ala., for bank building recently mentioned; size 69½x30 feet; gas and electric lighting; cost \$17,000; bids to be opened March 20.

Nashville, Tenn.—City Savings Bank is having plans prepared by Charles A. Ferguson of Nashville for bank building; one story; 22½x100 feet; exterior of cut stone and plate glass; proposed that south side of building and front be of plate glass; roof to be of art glass; interior of marble and mahogany; tile floors.

Norfolk, Va.—Norfolk & Southern Railway, Thomas Fitzgerald of Norfolk, receiver and manager, is having plans prepared by Benjamin F. Mitchell, architect and engineer, Seaboard Bank Building, Norfolk, for office building and freight warehouse to cost about \$125,000; former will be five stories high; 53x120 feet; exterior of pressed brick, with terra-cotta trimmings; front to be faced with tapestry brick; steel frame; metal window frames and wired-glass panes; tiled halls; elevator service; will be protected by fire mains, with hose attachments in every hall, and will also have watchmen's clocks and fire-alarm stations on every floor; freight warehouse will be in rear of office building. (See "Warehouses.")

Pine Bluff, Ark.—Pine Bluff Mercantile Co. will enlarge and remodel present two-story brick building as office building.

Pine Bluff, Ark.—Citizens' Bank will have plans prepared by W. S. White and John Galsford, Cotton Exchange Bldg., Memphis, Tenn., for bank building; six stories; brick and stone; cost reported to be \$200,000.

Portsmouth, Va.—Southern Bell Telephone & Telegraph Co. (main offices, Atlanta, Ga.) will erect two-story brick building in Portsmouth; cost about \$12,000; contract awarded Harwood & Moss, Newport News, Va.

San Marcos, Texas.—State Bank & Trust Co. will erect bank and office building; two stories; pressed brick; stone trimmings; contract awarded to Fischer & Lambie, Austin, Texas, at about \$15,000.

Snyder, Texas.—First State Bank & Trust Co. will erect two-story brick bank building; cost of site, \$4500.

Wheeling, W. Va.—Commercial Bank, 1303 Main St., is having plans prepared for improvements to bank building.

CHURCHES

Alton Park, Tenn.—Sara M. James Memorial M. E. Church, Rev. Cairnes, pastor, will erect edifice to cost about \$4000; plans not prepared.

Asheville, N. C.—Methodist Episcopal Church South awarded contract to H. C. Hugill, West Asheville, for erection of \$10,000 edifice in West Asheville; about 70x90 or 100 feet; main auditorium, Sunday-school room and study; mill construction, with brick veneer; hot-air heat; electric lighting; raised floor; probably Gothic front; cost \$10,000; plans by Charles H. Chum and H. C. Hugill, West Asheville. Address R. E. Atkinson, West Asheville. (See "Machinery Wanted.")

Beaumont, Texas.—Presbyterian Church has adopted plans for proposed edifice; stone and concrete; tile floors; cost about \$25,000. Address The Pastor, First Presbyterian Congregation.

Berkley, Va.—Berkley Avenue Baptist Church contemplates remodeling and enlarging edifice so as to provide nine additional Sunday-school rooms and increase seating capacity of main auditorium about 150; proposed to extend church building 14 feet on west end. Address The Pastor, Berkley Avenue Baptist Congregation.

Berwyn, Md.—Catholic Society of Berwyn and vicinity organized with Herbert H. Smith president, and will erect church building.

Birmingham, Ala.—South Highlands Presbyterian Church had plans prepared by Miller & Martin, Birmingham, for enlarging church and Sunday-school room. Address architects. (Recently mentioned.)

Brunswick, Ga.—Lutheran Congregation will erect edifice. Address The Pastor, Lutheran Church.

Charleston, S. C.—Cannon Street Baptist Church, Rev. August J. Nielson, pastor, will erect edifice.

Charleston, W. Va.—Methodist Episcopal Church, O. D. King, pastor, had plans prepared by J. C. Fulton, Uniontown, Pa., for proposed edifice, to cost about \$65,000; hot-air heat; gas and electric lighting; contract

to be let within two or three weeks; Hon. Wm. Burdette, Clerk Supreme Court, Charleston, may be addressed.

Clarksdale, Miss.—Jewish Congregation will erect synagogue. Address The Rabbi, Jewish Synagogue.

Dallas, Texas.—Baptist Church will erect brick edifice to cost about \$10,000. Address The Pastor, Haskell Avenue Baptist Congregation.

Fort Worth, Texas.—Holy Name Congregation, Rev. B. H. Diamond, pastor, awarded contract for erection of frame edifice.

Fort Worth, Texas.—Vincentian Roman Catholic parish, Rev. Father Parks, pastor, will erect edifice.

Gainesville, Texas.—Presbyterian Church, Dr. R. L. Irving, pastor, will erect brick edifice to cost about \$20,000.

Glasgow, Ky.—Methodist Congregation will erect edifice to cost about \$18,000. Address The Pastor, Methodist Congregation.

Hendersonville, N. C.—Methodist congregation is considering enlargement and improvement of present edifice or erection of new building. Address The Pastor, Methodist Church.

High Point, N. C.—First Reformed Church has had plans prepared by E. T. Hedrick for improvements to church; plans include remodeling present structure for Sunday-school room 32x40 feet and erecting addition 46x48 feet; hot-air heating plant will be installed; cost \$8000.

Jacksonville, Texas.—Presbyterian Church will erect edifice to cost \$20,000. Address The Pastor, Presbyterian Congregation.

Lawrenceburg, Tenn.—Methodist Episcopal Church is having plans prepared for proposed edifice by Camberlin & Co., Birmingham, Ala. Address The Pastor.

Norfolk, Va.—First Baptist Church has had plans prepared by A. H. Jennings, New York, for edifice in Ghent; site 180x100 feet; cost about \$55,000; bids will be invited in April; Rev. Dr. George W. Perryman, pastor.

Petersburg, Va.—Methodist Church will erect edifice. Address The Pastor, Blandford Methodist Congregation.

Petersburg, Va.—Methodist Congregation will erect edifice. Address The Pastor, West Washington Street Church.

San Marcos, Texas.—Methodist Church, John Anderson, pastor, has not yet selected plans for \$50,000 edifice mentioned in February.

Scottsville, Va.—Baptist Church will erect church building; brick; cost \$25,000. Address The Pastor, Calvary Baptist Congregation.

Sumter, S. C.—Catholic congregation, Chas. D. Wood, agent, Florence, S. C., will open bids about June 13 for erection of edifice recently mentioned; brick structure, with stone trimmings; hot-air heat; electric lighting; church, with furnishings, and rectory building recently noted, to cost \$35,000; plans by D. C. Barbot, Charleston, S. C.

COURTHOUSES

Dallas, N. C.—Gaston county will erect courthouse. Address County Commissioners.

Mocksville, N. C.—Davie County Commissioners to erect addition to courthouse.

DWELLINGS

Alexandria, Va.—R. I. Purcell, Bas Obispo, Panama, will erect concrete-block bungalow at Alexandria.

Atlanta, Ga.—H. E. Harman, Box 846, will erect summer home near Atlanta. (See "Machinery Wanted.")

Baltimore Md.—Jacob Wheatfield, 259 Calvert Bldg., awarded contract to James F. Morgan, 1300 South Charles St., Baltimore, for erection of 11 dwellings on Columbia avenue, recently mentioned; nine 14x40 feet; two 13x40 feet; cost about \$15,000; plans by John Freund, Jr., 210 East Lexington St., Baltimore.

Baltimore, Md.—Edwin G. Baetjer, 1409 Continental Bldg., awarded contract to Edw. Brady & Son, 1109-1113 Cathedral St., for erection of dwelling addition; 25x51 feet; three stories; foundation of brick laid in cement; steam-heating apparatus in basement; one bay window; cost \$10,000; architects, Parker, Thomas & Rice, 1109 Union Trust Bldg.

Baltimore, Md.—Dr. J. C. Clark, superintendent of Springfield State Asylum, Sykesville, Md., will erect residence at Edgewood Park; site 60x165 feet.

Baltimore, Md.—Mortimer W. West, 223 St. Paul St., will erect four dwellings at Forest Park; cost about \$15,000.

Baltimore, Md.—J. J. Cowan, 901 Hollins St., awarded contract to Wm. F. Melsh, 250

West Preston St., Baltimore, for erection of two dwellings at 832 and 834 West Lombard street; two stories; brick; cost about \$4000; plans by J. K. Stack, 12 East Lexington St., Baltimore.

Baltimore, Md.—Marion S. Pearce, 225-227 North Eutaw St., has had plans prepared by George R. Morris, Equitable Bldg., Baltimore, for residence at Lenox; two stories and attic; frame construction.

Baltimore, Md.—Philip J. Scheck, 225-227 North Eutaw St., has had plans prepared by A. Lowther Forest, Professional Bldg., Baltimore, for residence at Lenox; two stories and attic; frame construction.

Baltimore, Md.—Provident Realty Corporation, 220 St. Paul St., has had plans prepared by Henry J. Tinley, Hoffman Bldg., Baltimore, for six cottages at Wallbrook; 2½ stories; frame; about 30x35 feet; steam heat; gas and electric lighting; cost \$4000 each.

Belair, Md.—John A. Evans has had plans prepared by A. Cookman Leach, 323 North Charles St., Baltimore, for residence at Belair; stone; 39x44 feet; two and a half stories; boiler-room and laundry in basement; hot-water heat; cost about \$7500.

Birmingham, Ala.—Wm. A. Walker will award contract about March 25 for erection of two-story stone and brick veneer residence; ordinary construction; hot-air heating; gas and electric lighting; cost \$10,000; plans by Miller & Martin, Birmingham.

Birmingham, Ala.—Mrs. P. O'Brien awarded contract to A. P. Stephens, Birmingham, for erection of proposed \$3000 residence; two stories; frame; ordinary construction; gas lighting.

Birmingham, Ala.—T. Pool reported to erect residence; architect not selected.

Birmingham, Ala.—Miss Mamie Livley, Morris Hotel, will erect residence; plans by Chamberlin & Co., Birmingham, Ala.

Birmingham, Ala.—Mountain Terrace Land Co. awarded contract to J. E. Allen, 3820 Avenue D, Birmingham, for erection of residence to cost \$6110; plans by Warren & Welton, Birmingham; frame structure; 30x45 feet; siding first story; stucco and half timber above; ordinary construction; hot-air heat; electric lighting.

Catonville, Md.—S. J. Van Lill, Sr., 819 Granby St., Baltimore, and Catonsville, will erect 10 and 12 room cottages at cost of \$22,000; ordinary construction; hot-water heat; gas and electric lighting; plans by S. J. Van Lill, Jr.; contractor, Rudolph Delhman.

Chattanooga, Tenn.—T. H. Cooke, Temple Court, awarded contract to Wilbur M. Johnson, 502 East 4th St., Chattanooga, for erection of proposed \$6000 residence; two stories and basement; brick; stone trimmings and foundations; cement basement floors; tin and composition roof; hard-pine and oak interior finish; cabinet and brick mantels; stationary washbasins; hot-air heat; gas and electric lighting.

Chattanooga, Tenn.—Carl White will have proposed residence on Lookout Mountain (suburb) erected under supervision of architects Adams & Alsop, James Bldg., Chattanooga; two-story and basement frame building; shingle roof; hard-pine interior finish; plumbing; hot-air heat; acetylene-gas lighting; cost \$6000; excavation commenced; no general contract to be awarded.

Chattanooga, Tenn.—Geo. J. Hall, care of H. J. Heinz Company, 204 Carter St., Chattanooga, awarded contract to Allen & Curry, Chamberlain Bldg., Chattanooga, for brick work on two dwellings recently mentioned; seven-room dwelling, to cost \$3000, and six-room \$2500 structure; hard pine interior finish; hot-air heat; gas and electric lighting; no general contract.

Chattanooga, Tenn.—T. E. Hall, 104 E. 8th St., awarded contract to Allen & Curry, Chamberlain Bldg., Chattanooga, for brick work on \$3000 dwelling recently mentioned; plans by Chas. E. Bearden, Chamberlain Bldg., Chattanooga; no general contract.

Chattanooga, Tenn.—J. F. Kendrick has had plans prepared by C. E. Bearden, Chattanooga, for nine-room residence.

Chattanooga, Tenn.—A. C. Foust will erect residence.

Dallas, Texas.—S. W. King awarded contract to J. R. Sessums, Dallas, for erection of residence; three stories; brick and stone; 50x100 feet; cost \$17,000; plans by W. H. Baker.

Eufaula, Ala.—C. G. Mercer will erect \$10,000 residence.

Eufaula, Ala.—J. B. Garland will erect residence.

Eufaula, Ala.—J. E. Methvin will erect residence.

Fairfax, S. C.—J. B. Brunson will erect

residence; plans by Preacher & Holman, 403 Dyer Bldg., Augusta, Ga.

Fayetteville, Ala.—W. G. Cowan awarded contract to Glidwell Bros., Huntsville, Ala., for erection of \$5000 brick residence.

Gainesville, Ga.—G. W. D. Harber will erect \$10,000 residence.

Gainesville, Ga.—W. A. Miller will erect residence to cost about \$5000.

Galveston, Texas.—H. L. Nelson will erect bungalow-type residence.

Galveston, Texas.—Robert Ingram will erect two-story residence.

Hinton, W. Va.—James H. Miller will erect residence at Bellvue.

Houston, Texas.—Mrs. F. Rich awarded contract to Frank Heidelberg, 1417 Pensac Ave., Houston, for erection of dwelling recently mentioned; colonial style; 72 feet 7 inches by 69 feet overall, including galleries and porte cochere; cost \$12,500; plans by Chas. B. Dunbar, 112½ Preston St., Houston.

Huntington, Tenn.—J. Clarence Johnson will erect brick residence.

Huntsville, Ala.—James Murphree has had plans prepared by Ed. L. Love, Huntsville, for erection of \$4000 bungalow.

Kansas City, Mo.—Mrs. A. R. Meyer has had plans prepared by A. Van Brunt & Bro., Kansas City, for residence; three stories; brick and white stone trimmings; colonial style; 42x58 feet; hot-water heat; cost \$25,000.

Knoxville, Tenn.—Wallace Frazer will erect bungalow; one and a half stories; large veranda.

Knoxville, Tenn.—S. A. Ogden will erect bungalow; outside of extra wide weatherboarding.

Lynchburg, Va.—Kiah T. Ford will erect dwelling; frame; slate roof; cost \$4500.

Memphis, Tenn.—Mrs. Kate Long will erect residence; two stories; brick and stone veneer; tile roof; nine rooms; cost \$7850, exclusive of heating, wiring and plumbing.

Nashville, Tenn.—J. D. Pullen will erect residence; two stories; brick and stone; cost \$12,000.

New Orleans, La.—V. Grimmer is preparing plans for 16 cottages to be erected on St. Bernard street.

New Orleans, La.—Henry Ernst has had plans prepared by Keenan & Weiss, New Orleans, for two-story frame residence.

New Orleans, La.—Mrs. Fell has had plans prepared by Keenan & Weiss, New Orleans, for residence; two stories; frame.

New Orleans, La.—G. Warner has had plans prepared by Keenan & Weiss, New Orleans, for cottage.

New Orleans, La.—Sheppard & Ribelet, Perrin Bldg., have prepared plans for bungalow cottage.

New Orleans, La.—Alexander Hay, 127 Carondelet St., has prepared plans for \$3000 frame residence with tile roof; two stories, cellar and attic; 40x44 feet; hot-water heat; gas and electric lighting; owner's name not given. (See "Machinery Wanted.")

New Orleans, La.—Aolis Graml contemplates erection of two-story frame cottage; six rooms each side; sanitary plumbing; pantry and clothes closet; lot 30x120 feet.

Norfolk, Va.—E. T. Hargraves awarded contract to J. H. Pierce, Norfolk, for erection of residence; brick and frame; cost \$4500.

Norfolk, Va.—W. H. Trice will erect double brick dwelling; cost \$3000.

Norfolk, Va.—J. H. Peas awarded contract to George L. Grimes, Norfolk, for erection of \$2500 frame dwelling.

Norfolk, Va.—First Baptist Church will erect \$5000 parsonage; Dr. George W. Perryman, pastor.

Pass Christian, Miss.—S. F. Heaslip is having plans prepared by Keenan & Weiss, New Orleans, La., for frame and stucco bungalow.

Richmond, Va.—Mrs. Susie Braxton West, Vinita, Va., awarded contract to Harrison Construction Co., Petersburg, Va., for erection of \$5000 residence recently noted; three stories; red brick; colonial front; 15 rooms; hardwood; hot-water heat; electric and gas lighting; plans by owner.

Ripley, Tenn.—C. R. Barbee awarded contract to J. H. Cullen, Ripley, for erection of residence; two stories; brick and stone; steam heat; cost about \$10,000.

Roland Park, Station 1, Baltimore, Md.—John T. Hill, 306 Roland Ave., has had plans prepared by Isaac T. Pursell, 119 South 4th St., Philadelphia, Pa., for residence; two and a half stories; frame; contractors estimating include John Cowan, 106 West Madison St.,

Baltimore, and Roland Park Co., Roland Park.

Rome, Ga.—J. H. Taylor will erect two residences; one to be two stories, pebble-dash, and to be occupied by John Barclay; cost of both structures, \$6000.

Rome, Ga.—Asbury Randle will erect residence; site 100x150 feet.

Scottsville, Va.—Baptist Church will erect parsonage and church to cost \$25,000; Rev. F. H. Farrington, pastor.

Statesville, N. C.—Fred H. Conger awarded contract to T. L. Steele, Statesville, for erection of residence; plans by J. S. Zimmerman, Winston-Salem, N. C.; two-story structure; steam heat; electric lighting; cost \$7000 to \$8000.

St. Louis, Mo.—W. M. Stinde will erect residence.

Washington, D. C.—Geo. C. Pumphrey, 311 E St. S. E., will erect 30 six and eight-room dwellings at cost of \$4000 each; brick; hot-water heat and gas lighting; plans by Edw. O. Volland; construction by owner. (Recently noted to erect dwellings.)

Washington, D. C.—D. W. O'Donoghue, Century Bldg., awarded contract to Gormley-Poynton Co., Washington, for erection of dwelling; three stories; brick and stone; cost about \$10,000; plans by Appleton P. Clark, Jr., 606 F St. N. W., Washington.

Washington, D. C.—E. H. Gottwals has had plans prepared by and awarded contract to D. B. Gottwals, 1529 Rosedale St. N. E., Washington, for erection of two dwellings at 1105-1107 G St. S. E.; two stories; brick; cost about \$5000.

Washington, D. C.—Charles W. King, 1311 G St. N. W., will erect three residences on Park road.

Wilson, N. C.—S. H. Anderson will erect residence; red brick; stone trimmings.

Wilson, N. C.—Graham Woodward will erect residence.

GOVERNMENT AND STATE BUILDINGS

Ablene, Texas.—Weather Bureau.—Winters & Russell (probably of Abilene) have contract to erect Weather Bureau building; two stories and basement; brick; cost about \$15,000. (Recently mentioned.)

Annapolis, Md.—Hospital.—Plans for erection of one general ward and two isolation ward buildings at United States Naval Academy Hospital at Annapolis have been received at Builders' Exchange, Charles and Lexington Sts., Baltimore, Md.; general ward will be 50x52 feet; each building will be one story and basement; reinforced concrete; slate roof; marble and tile wainscoting and floors; steam heat and electric lighting; cost about \$33,000; bids to be opened March 20; R. C. Hollyday, chief of Bureau of Yards and Docks, Navy Department, Washington, D. C.; plans and specifications can be obtained on application to bureau or to commandant of navy-yard named. (Recently mentioned.)

Fort Oglethorpe, Ga.—Buildings.—Bids will be received at office of John M. Morgan, Constructing Quartermaster, until April 8 for construction of one field officers' quarters and one double set of lieutenants' quarters; information, plans and specifications furnished on application. (Recently mentioned.)

Vicksburg, Miss.—Hospital.—State Charity Hospital will erect \$14,000 amphitheater and annex.

HOTELS

Anniston, Ala.—L. H. Kaplan will add 25 rooms to American House; plans and specifications by Charles W. Carlton of Anniston; contract not awarded.

Atlanta, Ga.—Piedmont Hotel Co. awarded contract to Miles & Bradt Company, Atlanta, Ga., for extension to hotel; 10-story addition; 47x54 feet; fireproof; heating plant to be extended; cost \$75,000. (Recently noted.)

Bennington, Okla.—E. M. Gray, Durant, Okla., contemplates erection of hotel in Bennington.

Biloxi, Miss.—Dr. Folks is having plans prepared by Keenan & Weiss of New Orleans, La., for hotel; frame; tile roof; 150 rooms; cost about \$100,000.

Bristol, Va.—Tenn.—J. M. Parker will erect annex to Hotel St. Lawrence; three stories; brick; red repressed brick; frontage of 100 feet; depth to be 50 feet next to present building and 100 feet on western side; hardwood interior finish; 45 sleeping-rooms, 30 of which will have baths; cost about \$30,000; George S. Bunn, proprietor of St. Lawrence Hotel, will also lease annex.

Galveston, Texas.—Reisner & Co., Houston, Texas, have contract for steel work in erection of three additional fireproof stories to

Royal Hotel according to plans by H. C. Cooke & Co., Houston, Texas; addition will be supported by structural steel frame, extending from ground to top of building, and resting on reinforced concrete foundation; between present four stories and new stories concrete floor will be laid; each floor will be divided into 20 rooms, making total of 60 additional rooms; rooms will be furnished in white enamel; steel framework will be covered on outside with gray pressed brick; court has been planned for center of building, giving each room outside exposure; cost about \$50,000; H. H. Kopperl is owner of hotel. (Recently mentioned.)

Galveston, Texas.—J. B. Gilson will erect two-story brick hotel.

Lonoke, Ark.—A. J. Clements has had plans prepared for hotel; two stories; pressed brick; hot and cold water in all rooms; steam heat; cost \$30,000.

Memphis, Tenn.—Isle Bros. reported as contemplating erection of 12-story hotel.

Starkville, Miss.—H. A. Beattie, Mayor, is promoting erection of hotel; three stories; brick; stone trimmings; cost about \$25,000.

Virginia Beach, Va.—Neff & Thompson of Norfolk have prepared plans for 200-room hotel at Virginia Beach, on site of burned Princess Anne Hotel. (Previously mentioned.)

MISCELLANEOUS STRUCTURES

Arabi, La.—Jail, etc.—Parish of St. Bernard awarded contract to J. C. Bourg, Arabi, for erection of \$3000 building for "lock-up" and courtroom for Justice of the Peace; ordinary construction; two-story structure, 32x26 feet; iron cells.

Baltimore, Md.—Store Building.—Hecht Bros., proprietors of The Hub, Baltimore and Charles Sts., awarded contract to Engineering-Contracting Co., 207 American Bldg., Baltimore, for erection of addition to store building recently mentioned; five stories; 45x58 feet; facade to conform with present building; large windows rising entire height of building; floor levels outlined with heavy ornamental fascia; cold storage in basement for storing furs; fireproof; will connect with present structure by bridges above and tunnel under Bank lane; cost about \$100,000; plans by Parker, Thomas & Rice, Union Trust Bldg., Baltimore.

Baltimore, Md.—Clubhouse.—Walbrook Athletic Club, Clifton Ave. and 15th St., Walbrook, has accepted plans by Hay Eichelberger for construction of clubhouse; three stories; T shape; 50-foot front with 25-foot partitions extending on both sides of rear to 100 feet wide; foundations of bluestone; frame construction; shingle trimmings; four bowling alleys in basement; balcony for spectators; 300 lockers; six shower and two needle baths; porches, poolrooms, etc.; dance hall 45x35 feet, etc.; clubhouse proper to cost \$15,000; other improvements, \$10,000.

Baltimore, Md.—Store and Office Building.—Mrs. Caroline Rennert, Hotel Rennert, Liberty and Saratoga Sts., noted in January to award contract to Edward Brady & Sons, 1109-1113 Cathedral St., Baltimore, will soon begin construction of store and office building at 4 St. Paul street; "L"-shaped; 30x50 feet, with small addition to form "L" in rear of adjoining building; front will be Roman brick with marble trimmings; slag roof; foundation brick, laid in cement; hot-water heat; cost about \$12,000; plans by Clyde N. Friz, 11 East Pleasant St., Baltimore.

Baltimore, Md.—Stable.—Graham Storage Warehouse Co. awarded contract to John E. Marshall & Son, 121 Mercer St., Baltimore, for erection of stable, recently mentioned; two stories; brick and cement; 25x72 feet.

Baltimore, Md.—M. Griffin, St. Paul and Center Sts., has had plans prepared by T. George Carroll, Continental Bldg., Baltimore, for proposed stable on Park avenue; four stories; red brick, granite trimmings; contractors estimating include Edward Walters & Co., 532 St. Paul St.; J. J. Walsh & Son, 1525 Maryland Ave.; Morrow Bros., 218 West Saratoga St.; J. J. Moylan, 117 East Center St.; John T. Buckley, 916-920 Bolton St., and Harry Smith, all of Baltimore.

Bedias, Texas.—Business Building.—C. V. Barnes will erect business building; two stories; glass front; lower floor drug store; upper floor sanitarium and offices.

Birmingham, Ala.—Store.—J. M. Tannery & Co. will erect store building after plans by Chamberlin & Co., Birmingham.

Childress, Texas.—Store Buildings.—J. H. Mowery will erect store building; 25x115 feet; brick and stone; cost \$12,000.

Childress, Texas.—Hall, etc.—Knights of Pythias will erect \$7000 building; brick and stone; size 25x115 feet; one or more store-rooms on first floor; hall above. Address Secretary, Knights of Pythias.

Clarendon, Va.—Hall.—Masonic lodge is having plans prepared by Harding & Upman, 729 15th St. N. W., Washington, D. C., for lodge hall at Clarendon; two stories; rough red brick, laid in Flemish bond, with thick mortar joints; Indiana limestone trimmings; 40x65 feet; entrance ornamented with iron marquise; main lodgeroom 26x18 feet; first floor will be used for store; cost about \$10,000.

Cumberland, Md.—Jail.—Allegheny county is having plans prepared by Holmboe & Laferty, Clarksburg, W. Va., for proposed improvements to jail building at Cumberland. Address County Commissioners.

Dallas, Texas.—Business Building.—E. J. Fry and Charles Cobb, both of Marshall, Texas, have had plans prepared by Lang & Wittich, Dallas, for business building at Dallas; two stories; brick; 92x80 feet.

Dallas, Texas.—Sanger Bros. are having plans prepared by Lang & Wittich, Dallas, for addition to store building; eight stories and basement; brick, with terra-cotta trimmings; fireproof; elevators; spiral chutes; dumbwaiters; pneumatic tubes; improved method of ventilation; fireproof enclosed fire-escapes; elevators enclosed in fireproof partitions; plate-glass windows; 100x100x200 feet. (Noted in January.)

Douglas, Ga.—Hospital.—Dr. John M. Hall, Hazlehurst, Ga., will erect \$10,000 hospital building at Douglas.

Durant, Okla.—Hall.—I. O. O. F. and W. O. W. hall building committee, Joe S. Jennings and John Kittrell, will receive bids until March 25 for two-story brick hall, 45x110 feet. Plans may be seen at office of Chickasaw Lumber Co. Each bid must be accompanied by certified check for \$500.

Galveston, Texas.—Business Building.—B. G. Tartt will erect business building, to be occupied by John Christensen & Co.; cut-stone front; plate-glass windows; one story; 58x80 feet.

Heber, Ark.—Jail.—Cleburne county has rejected all bids for erection of proposed \$25,000 jail building; plans by Pauly Jail Building Co., St. Louis, Mo. (Recently mentioned.)

Hobart, Okla.—Store Building.—L. C. Clynne, Maple Park, Ill., will rebuild on larger scale Dixie Store building, reported burned.

Houston, Texas.—Stable and Barn.—Wells-Fargo & Co., main office, 51 Broadway, New York, awarded contract at \$13,000 to James Shapley & Sons, Houston, for erection of stables and barn; J. R. Loosen, Houston, will superintend construction.

Houston, Texas.—Business Building.—J. Allen Meyers will erect brick business building.

Huntingdon, Tenn.—Stable.—J. Clarence Johnson will erect brick livery stable.

Huntsville, Ala.—Stable.—W. J. Bennett & Co. will erect stable; three stories; 60x75 feet; reinforced concrete floor.

Jewel Station (not a postoffice), Va.—Clubhouse.—Washington Country Club is having plans prepared by Harding & Upman, 929 15th St. N. W., Washington, for a clubhouse at Jewel Station; bungalow type; 80x57 feet; front will be two stories; rear three stories; open fireplaces; building will be sheathed with shingles to level of second floor, above that finished in stucco; porch and balcony both front and back, with rough cedar log beams; front balcony supported by heavy stone piers.

Johnson City, Tenn.—Stores.—J. M. Martin and R. D. Parsons awarded contract to W. H. Allen, Johnson City, for erection of proposed storerooms; 50x75 feet; one story; brick, with pressed-brick front; mill construction; cost \$4000; plans by B. A. Mathe, Johnson City.

Kansas City, Mo.—Business Building.—S. N. Cohen will erect business building; two stories; brick; 75x159 feet; cost about \$20,000.

Memphis, Tenn.—Business Buildings.—Napoleon Hill will erect two-story brick business building to cost about \$10,000, and one \$15,000 three-story brick-and-stone structure to replace burned building.

Meridian, Miss.—Lodge Building, etc.—Mt. Baxter Lodge, No. 13, Knights of Pythias, will erect \$80,000 building, to contain stores, offices and lodgerooms; architect not selected; as proposed, structure to be semi-fireproof, six stories, covering 115x125 feet; steam heat; electric lighting; date of opening bids not set; J. W. Bailey, secretary building committee.

Miami, Fla.—Clubhouse.—Biscayne Bay Yacht Club will erect clubhouse, dock and bulkhead. (See "Miscellaneous Construction.")

Mocksville, N. C.—Jail.—Davie county will erect new jail building in Mocksville, to cost about \$10,000. Address County Commissioners.

Nacogdoches, Texas.—Temple.—A. F. & A.

Masons will build temple to cost \$15,000; plans being prepared.

New Iberia, La.—Store Building.—Sidney G. Harry awarded contract to Eugene Guillot, New Iberia, for erection of store building; one story; brick; 100x32 feet.

New Orleans, La.—Lodge Building.—New Orleans Dam, No. 43, Independent Order of Beavers, will erect lodge building; J. Earl Rogers, chairman building committee.

Norfolk, Va.—Store Buildings.—C. W. Grandy will erect four one-story brick store buildings, to cost \$4000.

Pine Bluff, Ark.—W. E. Graham and O. E. McKenzie have had plans prepared by Charles Thompson, Little Rock, Ark., for business building; three stories; brick.

Plano, Texas.—Auditorium.—J. T. Stark, T. C. Jasper and J. N. Mendenhall, building committee, has accepted plans by E. W. Bulger & Son, Dallas, Texas, for public auditorium; one story; frame; 60x120 feet; 10-foot vestibule; stage 22 feet high, 48 feet wide and 24 feet deep; five exits; front entrance 14 feet wide; seating capacity on ground floor 1600; Colonial style; interior finish wainscoting hard oil; cost about \$7000.

Richmond, Va.—Clubhouse.—Country Club of Virginia has accepted plans by Neff & Thompson, Norfolk, for clubhouse recently noted; Colonial style; main building and two wings; swimming pool in basement; cost \$30,000; steam heat; ordinary brick and frame construction.

Rock Hill, S. C.—Hospital.—W. W. Fenell will erect \$5000 hospital building.

Salver Creek, Miss.—Mercantile Building.—D. C. Griffith & Co. awarded contract to M. E. Dye, Gloster, Miss., for erection of proposed two-story brick mercantile building; 50x80 feet; acetylene-gas lighting; cost \$7500; plans by R. E. Lee, Hattiesburg, Miss.

Statesville, N. C.—Jail.—Wheeler, Gallher & Stern, 1214 Realty Bldg., Charlotte, N. C., will prepare plans for jail to be erected at Statesville; fireproof; light hydraulic pressed brick; terra-cotta; clay-tile roofing; vitrified china fixtures; iron stairs; cost \$20,000. (Frederick County Commissioners lately noted as receiving competitive plans.)

Steelton, W. Va.—Infirmary.—Wetzel county has plans prepared by Alexander & Chaplin, New Martinsville, W. Va., for county infirmary recently mentioned; plans and specifications on file after March 10 at architects' office and with S. Myers, County Clerk; bids received until April 7.

Steelton, W. Va.—Infirmary.—Wetzel county will receive bids until April 7 for erection of county infirmary at Steelton; certified check for \$500; plans and specifications on file at offices of S. Myers, County Clerk, or of Alexander & Chaplin, New Martinsville, W. Va. (Recently mentioned.)

Temple, Texas.—Y. M. C. A. Building.—Young Men's Christian Association will receive bids until March 20 for alterations and addition to association building; plans and specifications on file at offices of Sanguinette & Staats, Fort Worth, Texas, or of general secretary, Temple; A. F. Bently, chairman building committee.

Temple, Texas.—Business Block.—A. L. Flint and P. E. Cheeves will erect two-story brick business block.

Tulsa, Okla.—Business Building.—M. B. Baird will erect business building; 93x140 feet; two stories; brick; cost about \$20,000.

Wentworth, N. C.—Jail.—Rockingham county contemplates either remodeling present jail building at Wentworth or erecting new structure. Address County Commissioners.

Wharton, Texas.—Saloon.—R. W. Flanagan awarded contract to E. E. Carson for erection of building recently mentioned; structure 27x60 feet; plans by Jul. Lefland, Victoria, Texas.

Wharton, Texas.—Mercantile Building.—H. J. Bolton awarded contract for proposed dry-goods store; mill construction; 31x75 feet; cost about \$8000; plans by C. M. Glover & Sons, Houston, Texas.

MUNICIPAL BUILDINGS

Baltimore, Md.—Hospital Buildings.—Supervisors of City Charities have approved plans for group of hospital buildings to be erected at Bayview Asylum; group will consist of four structures, either two or three stories high, with administration building in center; first will be erected this year at cost of about \$100,000, and will accommodate about 100 patients; total of approximately \$500,000 will be expended, and it is expected that Board of Estimates will appropriate \$100,000 annually.

Baltimore, Md.—Truckhouse.—Architectural Commission, Frank N. Hoen (of A. Hoen & Co., Chester, Chase and Biddle Sts.), chairman, adopted plans by Charles M. Anderson,

324 North Charles St., Baltimore, for No. 14 truckhouse to be erected on Gorsuch avenue; cost about \$24,000; bids will be invited. (Recently mentioned.)

Benwood, W. Va.—Fire Station.—City contemplates, it is reported, erecting fire station on Marshall street. Address The Mayor.

Brookhaven, Miss.—Jail.—City awarded contract to West, Rutter & Welch of Brookhaven, at about \$2000, for erection of brick jail; plans and specifications by E. McCormick of Brookhaven.

Hillsboro, Texas.—City Hall and Fire Station.—City will vote April 6 on issuance of \$15,000 of bonds for erection of city hall and fire station. Address The Mayor.

New Orleans, La.—Public Baths.—Public Bath Commission will erect public bath; only shower baths will be installed at present; \$8000 now available.

Tampa, Fla.—Hospital.—Board of Public Works estimates cost of municipal hospital at \$30,000. Recently mentioned. (See "Road and Street Improvements.")

Tampa, Fla.—City Hall.—City contemplates erection of city hall to cost about \$200,000. Address The Mayor.

Union, S. C.—Fire Station, etc.—City will erect fire station on site 70x140 feet; preliminary plans for brick fireproof structure, two stories high, to contain fire department, police barracks, municipal offices, opera-house, etc.; cost about \$15,000. Address The Mayor.

Waurika, Okla.—City Hall.—City has voted \$12,000 of bonds for erection of city hall. Address The Mayor.

RAILWAY STATIONS

Alexandria, Va.—Chicago, Rock Island & Pacific Railway, J. B. Berry, chief engineer, Chicago, Ill.; Missouri Pacific Railway, M. L. Byers, chief engineer maintenance of way, St. Louis, Mo.; Southern Pacific Company, A. V. Kellogg, engineer maintenance of way, Houston, Texas; Texas & Pacific Railway, B. S. Wathen, chief engineer, Dallas, Texas; Louisiana Railway & Navigation Co., H. B. Heim, general superintendent, Shreveport, La., are interested, it is reported, in erection of proposed union passenger station; contract said to be awarded.

St. Louis, Mo.—Missouri, Kansas & Texas Railway, S. B. Fisher, consulting engineer, St. Louis, Mo., will, it is reported, erect freight station in St. Louis. (See "Railway Shops, Terminals, Roundhouses, etc.")

Weatherford, Texas.—Gulf, Colorado & Santa Fe Railway, W. E. Maxson, general superintendent, Galveston, Texas, reported to erect addition to depot at Weatherford. (See "Railway Shops, Terminals, Roundhouses, Etc.")

SCHOOLS

Anderson, S. C.—City postponed erection of school building recently mentioned; no definite plans to be made until early in 1910; J. L. Sherard, Mayor.

Atlanta, Ga.—Atlanta Theological Seminary, A. W. Farlinger, president, 325 Peachtree St., opened bids for erection of administration building; 75x50 feet; brick; steam heat; electric lighting; cost \$15,000.

Baltimore, Md.—Henry S. Rippel, 1-7 Clay St., Baltimore, at \$91,889, is lowest bidder for erection of school building at Reisterstown road and Fifth avenue, recently mentioned; three stories; brick; 24 classrooms; plans by Otto G. Simonson, American Bldg., Baltimore.

Baltimore, Md.—Contractors estimating on erection of school building to be erected at Mulberry and Payson streets include H. S. Ripple, 1-7 Clay St.; David Peoples, 213 north Calvert St.; P. J. Cushen, Law Bldg.; Noel Construction Co., Calvert and German Sts.; E. D. Springer, 424 South Charles St.; Monmonier & Sorrel, 1308 Laurens St.; William Ferguson & Bro., 214 Clay St.; C. L. Stockhausen, National Marine Bank Bldg.; M. C. Davis, 5 Hopkins Pl.; D. M. Andrews, Vickers Bldg.; Morrow Bros., 218 West Saratoga St.; John Hiltz & Sons Company, 3 Clay St., all of Baltimore. (Recently mentioned.)

Cameron, Texas.—City will erect addition to school building to cost about \$12,000; architects submitting plans include A. O. Watson, Austin, Texas.

Capitol Heights, P. O. Montgomery, Ala.—City will issue \$25,000 of bonds for erection of school building; J. S. Pinckard, Mayor.

Cleburne, Texas.—A. B. Barret, president, Box 146, Cleburne, and C. H. Roberson had plans prepared by Helsley & Ewing, Cleburne, for college building recently mentioned; fireproof pressed-brick structure; 52x64 feet; steam heat; electric and gas light-

ing; cost \$12,000; bids to be opened about March 15.

College Station, Texas.—Agricultural and Mechanical College is having plans prepared by F. E. Gieske, college architect, College Station, for Texas experiment station; two stories and basement; 60x115 feet; foundation and walls up to first floor reinforced concrete; above basement all outside walls will be brick, finished with cement wearing surface; interior supported by fireproof steel frame; flat reinforced concrete slab roof, covered with tar and gravel; reinforced concrete stairs, except those leading to roof, which will be of iron; tiled vestibule; will contain apartment for State Etymologist, State Feed Inspector, State Chemist; State experimental station, 19x21 feet; experiment station library, 23x38 feet.

Dallas, Texas.—Mission Home and Training School will erect new building, to cost about \$50,000.

Dallas, Texas.—City will vote April 6 on \$200,000 bond issue for purchasing sites and erection of school buildings. Address The Mayor. (Recently mentioned.)

Denton, Texas.—City has rejected all bids and is considering new plans for Central High School building, recently noted; cost about \$25,000. Address The Mayor.

Dublin, Texas.—City contemplates issuance of \$30,000 of bonds for erection of high school. Address The Mayor.

Eunice, La.—St. Landry parish is having plans prepared by George Chachere, Opelousas, La., for school building at Eunice; special tax has been voted.

Fayetteville, Tenn.—Morgan School will rebuild boys' dormitory and dining hall reported burned; loss about \$3000.

Flaton, Texas.—City will probably vote on bond issue for erection of school building. Address The Mayor.

Fordyce, Ark.—City awarded contract to E. L. Koonce, Fordyce, for erection of school building, recently mentioned; two stories; pressed brick; slate roof; plans by Charles L. Thompson, Little Rock, Ark.

Glenwood, Texas.—City will vote April 10 on \$23,000 bond issue for erection of 12-room brick school building. Address The Mayor.

Greenville, S. C.—Chicora College will erect additional story to college building to accommodate 50 pupils.

Higginsville, Mo.—City has voted on \$25,000 bond issue for erection of high-school building. Address The Mayor.

Houston Heights, Texas.—City will vote April 3 on \$20,000 bond issue for erection of school building. Address The Mayor.

Hugo, Okla.—City will receive bids until March 18 for erection of three school buildings; certified check for \$300; plans and specifications on file at offices of C. H. Page, Jr., & Bro., architects, Austin, Texas, or of J. F. Larcey, Hugo.

Jeanerette, La.—Iberia parish is having plans prepared for school building at Jeanerette. Address Police Jury.

Jonesboro, P. O. Birmingham, Ala.—City will vote March 15 on \$30,000 bond issue for school improvements. Address The Mayor.

Knoxville, Tenn.—City has had plans prepared by Gredig & Lynn, Knoxville, for McMillan School building; gray pressed brick; Colonial style; two stories and basement; furnace and ventilating system in basement; three entrances; electric lights.

Lafayette, Station St. Louis, Mo.—Southwestern Industrial Institute, E. L. Stephens, president, is having plans prepared by Favrot & Lvaudais, New Orleans, La., for two-story brick arts and crafts building and sanitary barn, and installation of steam-heating system in girls' dormitory and shower baths in boys' dormitory.

Lynchburg, Va.—City contemplates issuing bond for erection of high-school building to cost \$100,000, and three elementary schools to cost \$80,000; architects submitting plans include Lewis & Brumham, Fry & Chesterman and Johnson & McLoughlin, all of Lynchburg.

Mannford, Okla.—City will erect \$5000 school building. Address The Mayor.

Pittsburg, Texas.—City will vote on \$9000 bond issue for erection of addition to school building. Address The Mayor.

Pontotoc, Miss.—City had plans prepared by R. H. Hunt, Chattanooga, Tenn., for \$25,000 school building recently mentioned; 10 rooms; steam heat; contract not let; W. E. Whiteside, Mayor.

Poplarville, Miss.—Trustees of Pearl River County Agricultural High School will receive bids until March 15 for erection and completion of dormitory; plans, specifications and contract on file at office of Super-

intendent of Education of Pearl River County; Theo. G. Bolho, secretary and treasurer.

Shreveport, La.—City will erect high-school building to cost \$60,000. Address The Mayor.

Stone, R. F. D. from Mansfield, La.—De Soto Parish will vote on special five-mill tax for erection of school building. Address Police Commissioners.

Spring Hill, Ala.—Spring Hill College will rebuild, on larger scale, chapel and wing reported burned in January; chiefly brick construction; cost about \$60,000.

St. Augustine, Fla.—St. John county will erect school building at St. Augustine; plans by Robinson & Reidy, St. Augustine.

St. Elmo, Station Chattanooga, Tenn.—Hamilton County Board of Education, J. A. Hargraves, chairman, Courthouse, Chattanooga, has engaged Huntington & Sears, News Bldg., Chattanooga, to prepare plans for remodeling Seventeenth District school; brick-veneer building; probably new tin roof; steam-heating plant; cost \$5000.

Tarboro, N. C.—City will vote April 6 on \$35,000 bond issue for erection of school building. Address The Mayor.

Thomaston, Ga.—R. E. Lee Institute will rebuild main building and auditorium recently reported burned; loss about \$30,000.

Wakefield, N. C.—Wake county will vote April 6 on \$10,000 bond issue for erection of school building. Address County Commissioners.

Washington, D. C.—Howard University, 6th St. and Howard Pl. N. W., has had plans prepared by Whitfield & King, New York, for proposed library building; 95x44 feet; cost about \$50,000.

Weatherford, Texas.—City will vote on \$12,000 bond issue for erection of school building. Address The Mayor.

THEATERS

Baltimore, Md.—Harry Morstein, 1435 East Pratt St., will erect moving-picture theater at 666 West Lexington street; 20x34 feet; brick; slag roof; cost about \$3500; C. H. Callis is architect; John Wright & Co., 1126 Watson St., have contract.

Baltimore, Md.—A. Freedman, 1506 East Lombard St., will erect moving-picture theater at 926 and 928 West Baltimore street; plans have been prepared; contract awarded Morris Silberstein of Silberstein Bros., Calvert Bldg., Baltimore.

Baltimore, Md.—Baltimore Amusement Co., William Wellener, president, 312 West Lexington St., awarded contract to John K. McIver, 2315 Edmondson Ave., Baltimore, for erection of moving-picture and vaudeville theater on Eastern avenue, Highlandtown; 40x140 feet; 18-foot stage in rear; seating capacity, about 500; cost about \$10,000.

Baltimore, Md.—Interests connected with Metropolitan Opera Co., Andreas Dippel, manager, New York, reported to expend \$200,000 in remodeling Lyric Theater, at Mt. Royal avenue and Cathedral street; betterments will include lowering first floor, new stage (to be extended about 20 feet), better electrical arrangements and lighting effects for stage, alterations to front of building, changing of balcony, etc.; New York architects have prepared and submitted to owners outline of improvements; Bernard Ulrich is local manager. (Recently mentioned.)

Bristol, Tenn.—C. F. Hagan has plans prepared by Walter P. R. Pember, Bristol, for remodeling of old building recently mentioned; small theater; structure 43x116 feet; semi-fireproof; steam heat; electric lighting; fireproof curtain. (See "Machinery Wanted.")

Childress, Texas.—Company will be organized to erect theater recently mentioned; plans by Carl Boller, Kansas City, Mo.; brick and fireproof structure; 60x75 feet; 800 capacity; hot-air heating; electric lighting; cost \$16,000; date of opening bids not set; W. T. McNulty, secretary Board of Trade, may be addressed.

Fitzgerald, Ga.—J. C. Anderson, City Engineer, is preparing plans for \$25,000 opera-house; Isador Gelders, manager of present theater, interested in new building.

Gainesville, Texas.—Kirkpatrick Amusement Co. will erect theater to have seating capacity of 1500.

Houston, Texas.—Jesse H. Jones awarded contract to H. L. Stevens Company, Atlanta, Ga., for erection of proposed Majestic Theater; reinforced concrete construction; lobby to be 40x30 feet; two and one-half stories to vaulted dome, and finished entirely in Italian marble, mahogany and mirrors; dome to be ornamented with electric lights; parlor to be finished in ivory woodwork; two marble stairways to lead from lobby to balcony; two balconies; electric lighting; cost \$125,000;

plans by John Ebersson, Hamlin, Ohio; construction work to be under supervision of Mauran, Russell & Garden, architects, of St. Louis, Mo.

Louisville, Ky.—Louis Seelbach, James B. Speed and others are interested in erection of theater to cost about \$600,000.

Searcy, Ark.—Louis Lorch has had plans prepared by Gibb & Sanders of Little Rock for auditorium and bathhouse; 60x140 feet; cost \$16,000.

WAREHOUSES

Amelia, Va.—Allen Tobacco Co. will erect drying barn to replace burned structure.

Baltimore, Md.—Charles H. Kaufman, 508 West Lafayette Ave., recently mentioned to erect warehouse at 1405-1407 Brunt street, in both owner and builder; structure will be fireproof and used for storing furniture; contracts for material awarded; plans by George R. Morris, Equitable Bldg., Baltimore. (Further facts lately noted.)

Beaumont, Texas.—United Oil & Refining Co. will erect warehouse. (See "Miscellaneous Manufacturing Plants.")

Chickasha, Okla.—Sigmon Furniture Manufacturing Co. will rebuild warehouse recently reported burned; two-story brick structure; 54x110 feet; first floor, cement; 1½-inch flooring, second story; gravel roof; electric lighting; electric elevators; cost \$5000; plans and construction by owner.

Covington, La.—E. J. Domerque will erect brick warehouse, 60x200 feet; electric lighting; contract not awarded; architect not announced.

Hollister, Mo.—W. H. Johnson reported to have plans prepared by Mill, Opel & Torblitt, associate architects (probably of Springfield, Mo.), for depot at Hollister.

Kansas City, Mo.—Joseph H. Stone, 402 Reliance Building, Kansas City, has contract for erection of warehouse at Kansas City; three stories; 96x120 feet; concrete; steam heat; electric lighting; will install two freight, one passenger and one package elevators and one package chute; cost \$150,000.

Kansas City, Mo.—Otto H. Hesse, president Hesse Carriage Co., Leavenworth, Kans., purchased site 105x135 feet in Kansas City, and contemplates erecting three or four story warehouse.

Norfolk, Va.—Norfolk & Southern Railway, Thomas Fitzgerald of Norfolk, receiver and general manager, is having plans prepared by Benjamin F. Mitchell, architect and engineer, Seaboard Bank Building, Norfolk, for freight warehouse; fireproof; steel frame; tile walls; embrace about 50,000 square feet under one roof. (See "Bank and Office Buildings.")

Tampa, Fla.—Hendry & Knight awarded contract to Aulick & Deratt of Tampa for warehouse on west side of Mallory Docks; structure will be 40x70 feet.

Texas City, Texas.—Texas City Terminal Co., H. B. Moore, general manager, will erect dock storage warehouse; 90x500 feet; five miles of track room will be provided to enable discharge of freight from cars to boat and vice versa; conveyor system will be installed to connect present pier warehouse with land warehouse, two structures being about 500 feet apart; conveyor will operate both ways. (This work included in improvements recently referred to under "Miscellaneous Construction Work.")

RAILROAD CONSTRUCTION

RAILWAYS

Andalusia, Ala.—Announcement reported that the Central of Georgia Railway contemplates building a line about 250 miles long from Andalusia, Ala., westward to a connection with the Illinois Central Railroad near New Orleans; also an extension from Andalusia southward to Pensacola, and another extension of the Alexander City line to Union City, Ala. C. K. Lawrence is chief engineer at Savannah, Ga.

Arcadia, Fla.—Contract is reported let to L. H. Morgan of Fort Ogden, Fla., to grade the extension of the Charlotte Harbor & Northern Railway from Arcadia to Plant City.

Barboursville, Ky.—Preliminary survey reported begun for the northern extension of the Cumberland Railroad from Barboursville to Beattyville, Ky., 70 miles. J. H. Graham of Knoxville, Tenn., is engineer in charge. B. C. Milner is chief engineer at Warren, Ky.

Birmingham, Ala.—Reported that the Seaboard Air Line will build 4½ miles of side tracks for the new cement plant at Ragland, Ala., and that several other side tracks will

be constructed. W. L. Seddon is chief engineer at Portsmouth, Va.

Bentonville, Ark.—The Bentonville & Joplin Interurban Railway is reported to have elected directors as follows: A. W. Morris, president; H. A. Lenkens, vice-president; J. W. Blocher, secretary; Dwight Dickson, treasurer; D. W. Peel and J. D. Covey, auditing committee; L. H. McGill and W. A. Dickson, attorneys; K. C. Campbell; C. R. Craig and H. W. Gipple.

Bessemer, Ala.—Concerning the report that the Louisville & Nashville Railroad would build a line between Bessemer and Pelham, Ala., an officer writes the Manufacturers' Record that the company will not at present do any work there.

Big Springs, Texas.—Preliminary organization of a company is reported to build a railroad from Big Springs north to Soash; about 50 miles to be constructed this year, and survey to begin now. The Mayor may be able to give information.

Chattanooga, Tenn.—The Manufacturers' Record is informed that the Mountain Railway Co. has applied for incorporation to build an incline from the property of M. H. Ward, at Mountain Junction, to a point near the Lookout Mountain House; address, care of J. V. Williams, attorney, Temple Court, Chattanooga. The incorporators are Boyd Thompson, Charles M. Fox, S. B. Strang, J. S. Fletcher and E. S. Myers. D. J. Duncan, 712 Georgia Ave., Chattanooga, formerly manager of the Chattanooga Railways Co., is also said to be interested.

Clarksville, Texas.—The Board of Trade, it is reported, has engaged Walker & Irvin of Marshall, Texas, to run a survey from Clarksville northwest to a point on the Red River for a proposed railroad.

Cleveland, Tenn.—Reported that a survey is being made from Cleveland to Chattanooga for an electric railway. J. W. Adams of Chattanooga and others of that city obtained a franchise more than a year ago.

Clinton, Okla.—Reported that contracts have been let for the Clinton & Oklahoma Western Railway Co. and that survey will begin immediately, to be followed promptly by grading between Clinton and Butler. T. J. Nance is vice-president and J. H. O'Hearn is engineer in charge, both at Clinton, Okla. Other directors besides Mr. Nance are C. C. Godman, E. A. Humphrey, C. H. Lamb and J. T. Bradford of Clinton.

Dallas, Texas.—John T. Witt, chief engineer of the Gulf, Texas & Western Railway, headquarters at Jacksboro, Texas, is reported as saying that the D. J. Grigsby Construction Co. is working on its contract of 20 miles from Jacksboro west, and a construction train will be operated in 30 days. R. C. Megargel, 5 Nassau St., New York, is president.

DeQueen, Ark.—Rumored that the DeQueen & Eastern Railway will shortly begin an extension westward. M. F. Allen is general superintendent at DeQueen, Ark.

El Paso, Texas.—The Mesilla Valley & El Paso Interurban Railway is reported to have about completed financing for its proposed line from El Paso to Las Cruces and other places, 40 miles. O. H. Baum, El Paso, Texas, and others are interested.

Enid, Okla.—A letter to the Manufacturers' Record says that an interurban railway will soon be under construction and local capital is interested. W. S. Hollis, president of the Keystone Investment Co., may be able to give information.

Eureka Springs, Ark.—A traction and power company is reported incorporated to build interurban lines of railway out of Eureka Springs; capital \$300,000. The Mayor may be able to give information.

Fort Worth, Texas.—B. G. Leake, chief engineer, is reported as saying that the Southern Traction Co. will begin construction work on its proposed line from Fort Worth to Cleburne as soon as \$100,000 of stock is subscribed. Work may start by April 1. It can be completed in six months. Headquarters at Room 28 Dundee Building, Fort Worth, Texas.

Fredericksburg, Texas.—Temple D. Smith, Andrew F. Moursin and Alfred Vanderstucken, a local committee, are reported negotiating to secure the building of a railroad from Fredericksburg to connect with the San Antonio & Aransas Pass Railway near Comfort, Texas, 24 miles, on which 17 miles have been graded for several years. Northern capital is said to be interested.

Gainesville, Ga.—An officer of the Gainesville Midland Railway, in a letter to the Manufacturers' Record, confirms the report that widening of the gauge between Belmont and Monroe is contemplated, and says that estimates have been prepared, but nothing definite is decided.

Galveston, Texas.—The Peach River lines, owned by the Miller-Vidor Lumber Co., will, it is reported, build extensions amounting to about 20 miles, for which rails have been purchased. The Riverside & Gulf will be extended 15 miles, and the Gulf, Beaumont & Northern 5 miles. C. W. Hole of Galveston is general manager.

Gassaway, W. Va.—An officer of the Coal & Coke Railway is reported as saying that nothing definite has been done to build the branch from Gassaway south to the mouth of Wolf creek. R. H. Pembroke is chief engineer at Elkins, W. Va.

Herndon, W. Va.—Reported that the Norfolk & Western Railway has let a contract to build a line up Barker Creek in this (Wyoming) county. C. S. Churchill is chief engineer at Roanoke, Va.

Huntington, W. Va.—The Chesapeake & Ohio Railway is reported to have notified contractors to resume work on the extension in Wyoming and Raleigh counties, West Virginia. H. Pierce is engineer of construction at Richmond, Va.

Jennings, La.—Charter of the Lake Arthur, Jennings & Northern Railroad Co., capital \$1,000,000, is reported just filed at Lake Charles, La., to build from Lake Charles via Jennings to connect with the Colorado Southern, New Orleans & Pacific Railway. W. D. Conover of Lake Arthur, La., is president. Line to be about 50 miles long. Headquarters at Jennings, La.

Kentwood, La.—Reported that the Kentwood & Eastern Railway is building an extension of six miles to connect with the New Orleans Great Northern Railroad at Folsom, La. George A. Keyes is general manager at Kentwood, La.

Lafayette, La.—Preliminary survey reported for a railroad from Port Barre to Abbeville, La., via Broussard, Youngsville and St. Martinville. F. M. Welsh of New Orleans reported interested.

Lenoir, N. C.—A bill to use convict labor on the Watauga County Railroad is favorably reported in the Legislature. The proposed line is from Lenoir via Patterson and Blowing Rock to Boone, N. C. Capt. E. F. Lovell, Prof. B. B. Dougherty and others are reported interested.

Marianna, Fla.—The Manufacturers' Record is informed that Pennington & Evans of Marianna have begun the construction of a railroad from Marianna to Blountstown, Fla., touching the Chattahoochee River and extending to St. Andrews Bay.

Marshall, Texas.—Reported that the court has approved the sale of the Lodwick spur, 10 miles long, from Harleton to Lodwick and beyond, which was not sold when the Texas Southern was purchased. P. M. Young is receiver at Marshall, Texas.

Marshall, Texas.—An officer of the Marshall & East Texas Railway Co. informs the Manufacturers' Record that contract has been let to extend the line 12 miles south from Marshall. John Scott & Sons of St. Louis are the contractors. R. J. Lockwood is resident engineer. J. E. Votaw, general superintendent, will have charge of construction. It is intended to continue the extension to a point 25 or 40 miles from Marshall. A. T. Perkins of St. Louis is president. Kaiser & Maloney have a subcontract. It is reported.

Meridian, Miss.—An officer of the Mississippi River & Western Railway Co. writes the Manufacturers' Record that permanent survey is being made from Natchez to Meridian, Miss., 190 miles, via McNair, Hazlehurst, Georgetown, Mendenhall and Stephens. Cyrus Plummer of Crystal Springs, Miss., is engineer in charge. J. W. Hudson is vice-president at Hazlehurst, Miss.

Mobile, Ala.—Mr. William S. Anderson, 54 North Royal St., advises the Manufacturers' Record that a survey has been made for the proposed electric railway from Daphne, Baldwin county, Alabama, along the coast of Mobile Bay, and estimates on construction have been made. Chicago parties are interested.

Morgantown, W. Va.—The Morgantown & Dunkards Valley Railroad Co. is reported to have taken steps to issue \$300,000 of bonds for construction of 30 miles of electric railway from Morgantown west to Wadestown, W. Va., six miles north of Mannington. About four miles of grade is done. J. A. Miller is chief engineer at Morgantown.

Nashville, Tenn.—The Nashville Interurban Railway is reported to have operated its first car from Nashville to Franklin, about 18 miles.

New Orleans, La.—Reported that the New Orleans Great Northern Railroad has put 28 miles more of track in service north of Columbia Junction to Monticello, Miss.

Norfolk, Va.—The Manufacturers' Record is

officially informed that the Norfolk & Southern Railway will use the \$1,000,000 of receivers' certificates which have been authorized for various work, including freight terminals at Norfolk, remodeling and enlarging freight yards at Berkeley, Va., and Newbern, N. C., the construction of additional sidings and spurs and the building of 11 miles of line between Pinetown and Bishop Crossing, N. C., on which latter grading is nearly completed and track laying is in progress. F. L. Nicholson is engineer maintenance of way, at Norfolk, Va.

Ocala, Fla.—E. P. Rentz, it is reported, is taking steps toward the construction of the proposed railroad from Ocala to Silver Springs, and later to Palatka.

Ocala, Ga.—The Ocala Southern Railroad Co., it is reported, has applied for permission to issue \$300,000 of bonds and \$150,000 of common stock to build its proposed line from Ocala to Nashville, Ga., 30 miles. J. A. J. Henderson of Ocala, Ga., is president.

Pemberton, W. Va.—An official informs the Manufacturers' Record that the Raleigh & Southwestern Railway (controlled by the Chesapeake & Ohio) will build an extension of not more than six miles from Pemberton up Soak Creek, two miles across the divide, to the head of Winding Gulf Creek and down that stream. Johnson & Briggs of Richmond, Va., are the contractors. H. Pierce is engineer of construction, also at Richmond. This resumes work on a contract suspended for some time.

Ravenscroft, Tenn.—Cumberland county has voted \$25,000 of bonds to aid the Tennessee Northeastern Railroad Co., which proposes to build a line from Ravenscroft, via Crossville, Johnson Stand and Jamestown, to Winchester Siding, on the New Orleans, Cincinnati & Pacific Railway, about 120 miles, and later to build extensions to Chattanooga and to Louisville. T. W. Holland is general manager.

Ravenscroft, Tenn.—Cumberland county, it is reported, has voted a \$25,000 subscription to the proposed Tennessee Northeastern Railroad, of which D. L. Flicks of Scranton, Pa., is president and Ward R. Case of Jamestown, Tenn., is secretary.

Roanoke, Va.—The Norfolk & Western Railway, it is reported, will build seven miles of double track west of Jaeger, W. Va. C. S. Churchill is chief engineer at Roanoke, Va.

Robert Lee, Texas.—Col. Austin Spencer and J. T. Thomson are reported to be taking steps for resuming work on the Robert Lee & Fort Chadbourne Railroad.

St. Albans, W. Va.—Reported that the Chesapeake & Ohio Railway has ordered construction of a contemplated extension from Peytonia to Jerrold's Valley to connect with the Cabin Creek branch, 23 miles, and contract has been let. Another report says that a branch will be built from Surveyor, on Piney Branch, to Marsh Fork, 80 miles, to connect with the Cabin Creek road. H. Pierce is engineer of construction at Richmond, Va.

Statesboro, Ga.—Rumored that construction of the Savannah, Augusta & Northern Railway will be resumed soon. W. H. Lynn is president, at 111 Broadway, New York, and E. M. Rice is chief engineer at Statesboro, Ga.

Stephenville, Texas.—W. C. Fordyce, vice-president of the Commonwealth Trust Co. of St. Louis, representing interests which recently purchased a half-interest in the Stephenville North & South Railway, is quoted as confirming the report that the line may be extended northwest to Thurber, Texas.

Texas City, Texas.—The Texas City Terminal Co., it is reported, will build five miles of tracks in connection with other improvements. H. B. Moore is vice-president and general manager.

Valdosta, Ga.—Construction is reported begun on the Valdosta, Moultrie & Western Railway.

Vernon, Texas.—The Oklahoma, Vernon & Pacific Railroad Co. is reported organized with \$125,000 capital to build a line from Vernon westward into the Panhandle of Texas. Survey is under way. L. G. Hawkins, L. J. Massie and others are the incorporators. The Board of Trade is said to be interested.

Wheeling, W. Va.—Reported that the Baltimore & Ohio Railroad will build a branch from Greenlick, on the Mount Pleasant branch, to a point near Bridgeport. A. M. Kinsman is chief engineer at Baltimore, Md.

STREET RAILWAYS

Atlanta, Ga.—The Georgia Railway & Electric Co. will, it is reported, begin construction immediately on the extension of the Marietta-street line, 1½ miles. W. H. Glenn is manager.

Augusta, Ga.—An ordinance is before the council to grant the Augusta & Alken Railroad Co. the right to build an extension.

Enid, Okla.—Reported that the Enid City Railway will build an extension on South Grand avenue. C. Kline is general manager.

Eureka Springs, Ark.—A. M. Barron, general manager of the Citizens' Electric Co., is quoted as saying that contracts will be let to rebuild the entire track. An extension of from three to six miles is also contemplated.

Fort Smith, Ark.—The Fort Smith Light & Traction Co., it is reported, will build an extension and will also do some double-tracking. J. W. Gillette is general manager.

Gainesville, Va.—The Gainesville Electric Street Railway has, it is reported, been sold at auction to R. L. West of Atlanta, representing the bondholders. Improvements may be made.

Helena, Ark.—Construction is reported begun by the Helena Street Railway Co., of which J. T. Burkes is president.

Houston, Texas.—The Houston Electric Co., it is reported, contemplates an extension of more than a mile to the Houston turning basin. David Daly is manager.

Knoxville, Tenn.—The Knoxville Railway & Light Co., it is reported, will immediately begin construction of double track on the Fountain City line.

Little Rock, Ark.—A letter to the Manufacturers' Record says that the Little Rock Railway & Electric Co. is double-tracking the Pulaski Heights line for a mile and a half.

Pine Bluff, Ark.—The Citizens' Light & Transit Co. is reported as making announcement that improvements are to be made this year.

Port Arthur, Tex.—H. J. Myers and S. A. Price of Dayton, Ohio, representing a syndicate, are investigating for a proposed street railway in Port Arthur, to cost about \$100,000.

San Antonio, Texas.—The San Antonio Gas & Electric Co. and the San Antonio Traction Co. are reported to have completed arrangements to issue refunding bonds, which will also provide for contemplated improvements and extensions.

Selma, Ala.—Concerning the report that improvements will be made to the Selma Street & Suburban Railway, an official informs the Manufacturers' Record that a decision has not yet been reached.

Spartanburg, S. C.—The Spartanburg Railroad notified the City Council that the extension to Saxon Mills will be built within a year; also that the company intends to extend to Drayton Mills, Whitney Mills and Cowpens. F. H. Knox is general manager.

Springfield, Mo.—W. A. Bixby, general manager, is reported as saying that contract will be let for a 1½-mile extension.

St. Louis, Mo.—Reported that plans and estimates have been prepared for a passenger and express subway railroad from a point near the Eads bridge to Taylor avenue, with four branches. New York capital is said to be interested. Application will be made for a franchise. The Board of Trade may be able to give information.

Wheeling, W. Va.—The City & Elm Grove Railway Co., it is reported, contemplates building a line to Parkview. John A. Howard is president.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Asbestos Curtain.—See "Theater Curtain." Art Glass.—Alexander Hay, 127 Carondelet St., New Orleans, La., wants prices on art glass.

Automobile Manufacturers.—P. O. Box 64, Valdosta, Ga., wants catalogues of automobile manufacturers wanting agencies in Georgia.

Bells.—Green River Manufacturing Co., Lakewood, N. C., wants addresses of manufacturers of church and factory bells.

Boiler Firebox.—See "Firebox."

Boiler.—M. Rowe, Hahira, Ga., wants boiler. Boilers.—Clarence Cosby, Richmond, Va., wants addresses of manufacturers of boilers for sawmills.

Bone Mill.—Chas. L. Metcalf, Hartford, Ala., wants power mill to grind green and dry bones for fertilizers.

Brick Machinery.—J. E. Crozier, Walteville, W. Va., wants data on brick manufacturing and prices on brick machinery.

Brick Machinery.—F. G. Crozier, Walteville, W. Va., wants brick press.

Bridge Construction.—See "Road Construction."

Bridge Construction.—T. H. Tabor, Ordinary of Gilmer county, Ellijay, Ga., will receive bids until April 6 for construction of double-track steel bridge, with or without sidewalk, across Ellijay River; structure to consist of one span of 102 feet and roadway of 16 feet, with 5-foot sidewalk on west side of roadway, and with truss height of not less than 17 feet, to be complete above piers with fence and floor; alternate bids will be received for steel bridge as shown by two sets of plans and specifications; bids will also be received at same date for building two stone and cement piers or 30-inch steel tubular piers at said bridge site; plans and specifications for bridge and piers may be seen at office of Mr. Tabor 10 days before day of letting; bridge bids to be accompanied by certified check for \$250.

Bridge Construction.—Board of Supervisors of Panola County, Batesville, Miss., will receive bids at April term for building iron bridge over Long Creek about one mile south of Courtland, Miss. R. W. Draper, Clerk of Board.

Bridge Construction.—Bradford County Commissioners, Starke, Fla., will receive bids until April 5 for construction of steel highway bridge over New River, four miles from Lake Butler; plans on file in Clerk's office at courthouse, Starke; certified check, \$1000; separate bids to be made on construction of 200 feet of bridge as designated on plans filed, and construction of entire bridge of 1236 feet; C. L. Peek, chairman Board County Commissioners.

Bridges.—York County Commissioners, Clem F. Gordon, Supervisor, Yorkville, S. C., will open bids on March 17 for construction of two bridges.

Builders' Supplies.—H. E. Harman, Box 846, Atlanta, Ga., wants prices on builders' supplies, etc.

Canning Machinery.—See "Syrup Machinery, etc."

Can Manufacturers.—C. A. Turner, 707 21st St., Norfolk, Va., wants list of manufacturers of cans for talcum powders, etc.

Cement.—Cochrane Showcase Co., Charlotte, N. C., wants cement for glass case manufacture.

Cement-block Machine.—Greenville Cement Co., Greenville, Miss., wants prices on cement-block machine.

Cement-block Machines.—C. N. Durand, Denham Springs, La., wants prices on cement-block machines.

Coal.—Sealed proposals will be received at office of Purchasing Department, Panama Railroad Co., 24 State St., New York, until March 16 for furnishing all or part of 400,000 tons of semi-bituminous coal. Blanks (Circular P-206) and full information may be had upon application at this office; Wendell L. Simpson, Major, Nineteenth Infantry, U. S. A., Assistant Purchasing Officer.

Compression Machinery.—Adler-May-Arrowood & Co., Adler Bldg., Atlanta, Ga., want prices on compression machinery of all kinds.

Communism Set.—R. E. Atkinson, West Asheville, N. C., wants prices on individual communism sets.

Concrete-block Machinery.—Emil Zerkowitz, Hungarian Consul, 49 Exchange Pl., New York, wants names and addresses of manufacturers of concrete-block machinery; wants the data for Hungarian trade.

Cotton Gin.—S. M. Hall, Messina, Ga., will open proposals July 1 for cotton gin.

Cranes, etc.—Bids will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until March 29 for furnishing locomotive coaling cranes, steel castings, steam-shovel booms, rafts, dipper handles and spuds, wood-boring machines, drills, saws, shears, pipe cutters, etc. Blanks and general information relating to Circular No. 497 may be obtained at above office or offices of assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans; 1086 North Point street, San Francisco, Cal.; also from U. S. Engi-

neer office in following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburg, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile, Galveston, and Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma, Wash.; F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Creamery Machinery.—Mercantile Securities Co., A. Elmo Hammonds, Lawton, Okla., wants prices on creamery machinery.

Drawing Materials.—C. N. Durand, Denham Springs, La., wants prices on drawing materials.

Dwelling.—Sealed proposals will be received at office of Lighthouse Engineer, Baltimore, Md., until March 25 for furnishing materials and labor for erection and delivery of keeper's dwelling at Bodie Island Light Station, N. C., in accordance with specifications, copies of which, with blank proposals and other information, may be had upon application to Lighthouse Engineer, Baltimore, Md.

Electric Fixtures.—St. Francis Street Baptist Church, Mobile, Ala., will receive proposals until March 18 for electric fixtures for edifice. Address The Pastor.

Electric-light Plant.—A. Elmo Hammonds, Mercantile Securities Co., Lawton, Okla., wants prices on electric-light plant.

Electric-light Plant, etc.—Mayor and Council, Berlin, Md., will receive bids until March 25 for construction of water-works and electric-light systems, bids to remain open for two calendar months at option of Mayor and Council; work to be divided into seven divisions, which may be bid on separately or collectively, preference to be given to proposals covering greatest number of divisions of work; specifications at office of Dodge & Day, engineers, Washington Bldg., 608 Chestnut St., Philadelphia, Pa., or will be forwarded by Mayor and Council upon receipt of \$10, which will be refunded when drawings are returned. (Previously reported as to open bids March 16.)

Electric Motor.—Butler-Kyser Oil & Fertilizer Co., Albertville, Ala., in market for three-phase 60-cycle 220-current or voltage speed motor, to run not over 900 revolutions; new or second-hand.

Electric Motors.—Hamilton County Board of Education, care of Prof. J. B. Brown, superintendent county courthouse, Chattanooga, Tenn., wants catalogues and prices on electric motors.

Electric Plant.—Washington Lumber Co., Ltd., Franklinton, La., wants prices on small electric plant.

Electric Signs.—G. E. Haynsworth, Sumter, S. C., wants to correspond with manufacturers of electric illumination signs.

Electrical Machinery.—Adler-May-Arrowood & Co., Adler Bldg., Atlanta, Ga., want prices on second-hand electrical equipment.

Electrical Machinery.—Frederick P. Jennings, Sentinel, Okla., in market for dynamos and other equipment for electric plant.

Engine.—M. Rowe, Hahira, Ga., wants engine.

Engines.—P. O. Box 825, Greensboro, N. C., in market for 12, 14, 16 or 18 hp 36 standard Corliss engine; also either 18 or 20 hp 42 Corliss engine.

Engine.—See "Gas Engine."

Engine.—City of Marlow, Okla., Ben Boon, superintendent light and water plant, will receive proposals until March 20 for 70, 80 and 90 horse-power oil engine using crude or solar oils for fuel; will buy one engine; specifications and guarantee to accompany proposals.

Engines.—Clarence Cosby, Richmond, Va., wants addresses of manufacturers of engines for sawmills.

Filter.—Thos. Tomlinson, Tate Spring, Tenn., wants water filter with capacity of 10,000 gallons per hour.

Firebox.—W. A. McDowell, Paolet, S. C., wants second-hand 75-horse-power internal firebox, boiler type, with Morrison corrugated furnace.

Flooring.—Alexander Hay, 127 Carondelet St., New Orleans, La., wants prices on maple flooring.

Furniture.—St. Francis Street Baptist Church, Mobile, Ala., will receive proposals until March 18 for church furniture. Address The Pastor.

Furniture.—Board of Public Works, H. F. Van Dusen, chairman, Chattanooga, Tenn., will receive proposals until April 6 for steel, oak and mahogany furniture, fixtures, desks, files and shelving for new \$300,000 city hall building.

Furniture.—See "Postoffice Furniture."

Gas Engine.—Western Grain Co., Carnall Ave. and S. 10th St., Fort Smith, Ark., wants new or second-hand 70-horse-power natural-gas engine.

Gasoline Engines.—Clarence Cosby, Richmond, Va., wants addresses of manufacturers of gasoline engines.

Gas Producers.—Conway & Holt, LaLomita Ranch, Mission, Texas, will consider purchase of gas producer for 350-horse-power 36-inch pump. (See "Pump.")

Glass.—Moore Lumber & Manufacturing Co., Lancaster, S. C., in market for one or more carloads of window glass.

Glass.—See "Art Glass."

Glass Manufacturers.—Carolina Bagging Co., Henderson, N. C., wants names and addresses of rubber-glass manufacturers.

Handles.—Southern Shovel Manufacturing Co., S. Marks, secretary, Box 605, Bessemer, Ala., wants addresses of handle manufacturers in Louisiana, Florida or Texas.

Hardware.—See "Cant Hooks."

Heating Plant.—Alexander Hay, 127 Carondelet St., New Orleans, La., wants prices on hot-water heating plant.

Heating Plant.—R. E. Atkinson, West Asheville, N. C., wants prices on heating plant for \$10,000 church edifice.

Hoisting Outfits.—Clarence Cosby, Richmond, Va., wants addresses of manufacturers of steam and gasoline hoisting outfits.

Hooks.—D. M. Anthony, East Providence, R. I., wants names and addresses of manufacturers of cotton hooks, meat hooks, cant-hooks, etc.

Ice Machinery.—Frederick P. Jennings, Sentinel, Okla., in market for ice-plant equipment.

Ice Machinery.—Williams-Hughes Company, Lancaster, S. C., wants information and prices on ice plant of 200 to 300 tons per season capacity.

Ice Plants.—Adler-May-Arrowood & Co., Adler Bldg., Atlanta, Ga., want second-hand ice plants of 5, 6, 10, 15 and 20 tons capacity.

Ice Plant.—Thos. Tomlinson, Tate Spring, Tenn., wants ice plant with two-ton refrigerating and one-ton ice capacity.

Interior Decorations.—Board of Public Works, H. F. Van Dusen, chairman, Chattanooga, Tenn., will receive proposals until April 6 for interior paint and decorations for new \$200,000 city hall.

Laundry Machinery.—A. Elmo Hammonds, Mercantile Securities Co., Lawton, Okla., wants prices on steam laundry machinery.

Levee Construction.—Office Board of Levee Commissioners, Orleans Levee District, Room No. 15, Masonic Temple, New Orleans. Sealed proposals will be received until March 16 for construction of levee from Metairie road to West End, on west bank of New Basin Canal; length about 14,830 feet; contents, about 115,000 cubic yards of earth; deposit, \$125 in cash or certified check. For plans, specifications, bidders' blanks and further information apply at above office; Jules C. Koenig, president, and Peter E. Muntz, secretary, Board of Levee Commissioners.

Lighting Fixtures.—Alexander Hay, 127 Carondelet St., New Orleans, La., wants prices on lighting fixtures.

Metal Cases, etc.—Baltimore (Md.) Board of Awards will receive bids until March 17 (instead of until March 3, as lately stated) for furnishing and erecting metal cases, furniture, trucks and partitions in vault in south court of City Hall; certified check \$500; drawings and specifications at office of Edward D. Preston, City Hall, Building Inspector.

Metal Workers.—E. H. Holder, Birmingham, Ala., wants names and addresses of firms equipped to produce small parts of mechanism from sheet metal.

Metal-working Machinery.—Hamilton County Board of Education, care of Prof. J. B. Brown, superintendent county courthouse, Chattanooga, Tenn., wants prices and catalogues on metal lathes.

Mill Work.—C. N. Durand, Denham Springs, La., wants prices on factory work.

Nickel-plated Clips.—Cochrane Showcase Co., Charlotte, N. C., wants to correspond with manufacturers of and dealers in nickel-plated clips, such as used in construction of glass cases.

Oil Machinery.—M. N. Demirjian, 43 White St., New York, or Aintab, Turkey, wants catalogues and prices on machinery for manufacturing olive oil and linseed oil.

Oil-mill Machinery.—Kershaw Oil Mill, Fred E. Culvern, manager, Kershaw, S. C., wants prices on oil-mill machinery, including

linters, hullers, separating machinery and saw-filing apparatus.

Omnibus.—N. D. Miller, proprietor Bonifay Hotel, Bonifay, Fla., in market for omnibus.

Overall Machinery.—Mountain Products Co., Middlesboro, Ky., wants data and prices on machinery for manufacturing overalls, jackets and shirts. (Address erroneously printed recently.)

Paving.—Baltimore (Md.) Board of Awards will receive bids until March 17 to grade, curb, gutter and pave with improved paving 29th street from Huntingdon to Guilford avenue, Fourth avenue from Falls road to Chestnut avenue, Chestnut avenue from Third to Fourth avenue; and to grade, curb, gutter and pave with improved paving or tarred macadam Walrad avenue from Augusta (Irvington) to Collins avenue, Loudon avenue from Frederick road to Old Frederick road; James H. Smith, president Commissioners for Opening Streets; Eugene F. Rodgers, secretary.

Planer and Matcher.—Goldsboro Planing Mill Co., Goldsboro, N. C., wants planer and matcher; second-hand. (Glen Cove preferred.)

Planing Mill.—J. E. Crosier, Walteville, W. Va., wants planing mill.

Plaster Machinery.—Texas Cement, Plaster & Supply Co., Dallas, Texas, will open proposals for machinery April 1.

Postoffice Furniture.—C. H. Petry, Mt. Sterling, Ky., wants prices on postoffice furniture.

Printing Presses.—M. Karnack & Co., Basavangudi road, Bangalore City, India, want prices and discounts on treadle-power printing presses of various sizes.

Pump.—Goldsboro Planing Mill Co., Goldsboro, N. C., wants pump (Worthington preferred); two-inch suction; one-and-one-half inch discharge; to put water in three 80-horse-power boilers.

Pump.—Conway & Holt, LaLomita Ranch, Mission, Texas, will probably award contract within 60 days for 350-horse-power 36-inch pump for irrigation; steam or producer gas power.

Pump and Power.—Greenville Cement Tile Co., Greenville, Miss., wants prices on centrifugal pump and power for same.

Pumps.—Greer Ice & Fuel Co., Greer, S. C., wants prices on pumps.

Pumping Engine.—Mayor and Board of Aldermen, Jackson, Miss., will receive bids until April 6 for furnishing high-duty waterworks pumping engine of 6,000-gallons capacity. Specifications can be obtained on application to Hamilton Johnson, City Engineer, Jackson.

Rails, etc.—A. V. Kaiser & Co., 739 Drexel Bldg., 5th and Chestnut Sts., Philadelphia, Pa., in market for 15 to 35 miles of relaying rails, 50 to 56 pounds, with bars, bolts, spikes, etc., for Texas delivery.

Rails.—Hilton Lumber Co., Wilmington, N. C., wants addresses of mills prepared to roll new first-quality steel rails; 30 to 50-pound sections.

Refrigerating Machinery.—See "Ice Plant."

Reservoir.—Sealed proposals for constructing reservoir to store spring water to supply a fountain in Druid Hill Park, with all necessary supply and outlet pipes, marked "Proposals for construction of small reservoir and pipe lines, Park Department," addressed to Board of Awards, care of City Register, City Hall, Baltimore, Md., will be received at office of City Register until March 17, in accordance with the plans and specifications of Board of Park Commissioners, which can be obtained at office of board, Madison-avenue entrance to Druid Hill Park. Proposals must be accompanied by certified check of bidder for \$300.

Road Construction.—Cecil County Commissioners, W. H. Deshane, president, Elkton, Md., will receive bids until March 12 for improving road between Korner Ketch and H. L. Glacken's Gate, and until same date for improving road between Rising Sun and Principio. Former work will include grading and macadamizing about one-half mile of road, and latter about three miles; each proposal on blank form furnished by State Geological Survey Commission, obtained through office in Baltimore, Md.; certified check, \$200.

Road Construction.—Road Commission of Alamance County (R. L. Holt, chairman, and D. A. White, secretary), Graham, N. C., will receive bids until April 5 for building about 45 miles of macadam roads and 14 short-span reinforced concrete bridges in Alamance county; roads to be graded to width of about 28 feet and macadam to be about 10 feet wide; plans, specifications and profiles on file at Courthouse, Graham, and at engineer's office at Burlington, N. C., and copies of specifica-

tions, forms of proposal, etc., may be obtained from engineer at Durham, N. C., by depositing \$5; certified check for \$5000. Gilbert C. White, Durham, N. C., is engineer.

Road Machinery.—City of Dawson, Ga., wants rock crusher and roller. Address F. J. McNulty.

Road Roller.—L. W. McDaniel, McComb City, Miss., in market for 8 or 10 ton street or road steam roller; coal burner.

Roofing Paper.—J. E. Crosier, Walteville, W. Va., wants roofing paper.

Rubber Glass.—See "Glass."

Saw.—Goldsboro Planing Mill Co., Goldsboro, N. C., wants second-hand band resaw. (Merston with five-inch blade preferred.)

Sawmill.—M. Rowe, Hahira, Ga., wants sawmill.

Seating.—C. F. Hagan, Bristol, Tenn., wants bids on seating for small theater.

Seating.—R. E. Atkinson, West Asheville, N. C., wants prices on seating for \$10,000 church edifice.

Sewer Construction.—Commissioners of Sewerage, Equitable Bldg., Louisville, Ky., will open proposals March 26 for construction of sewer known as Section G of southern outfall sewer, Contract No. 29 of comprehensive system; reinforced concrete sewer of three sizes—7 feet, 10 feet, and 7 feet 8 inches diameter; total length about 466 feet, and from 16 to 33 feet deep; 3700 cubic yards of concrete and 300,000 pounds of steel; plans and specifications at offices of Commissioners and of Harrison P. Eddy, consulting engineer, 14 Beacon St., Boston, Mass; each bid accompanied by certified check for 7 per cent. of amount of bid or bidder's bond as described in form of proposal.

Sewer Construction.—Clerk of Council, Atlanta, Ga., will receive bids until March 12 for construction of such sewers as may be authorized by Mayor and General Council during 1909, except such sewers as may be authorized by proposed bond issue. Specifications furnished on application to R. M. Clayton, City Engineer; certified check, \$500.

Sewer Construction.—Mayor and City Council, Cedarstown, Ga., will receive bids until April 6 for laying about two miles of sewer; specifications on file with J. B. Lacy, Street Commissioners, and S. S. Evans, City Engineer.

Sewer Construction.—City of Winchester, Va., will receive bids until March 25 for construction of system of sanitary sewers and intermittent filtration plant; separate bids will be received for pipelaying and disposal plant; certified check, \$250, payable to G. H. Kinzel, Treasurer of city; specifications will be sent on application, and detailed plans are on file at Winchester, Va.; with Engineering Record, New York, and Manufacturers' Record, Baltimore. For information address Shirely Carter, chairman Sewerage Commission; N. Wilson Davis, Harrisonburg, Va., is engineer.

Sewerage System, etc.—Mayor and Council, Oakland, Md., will receive bids until March 25 for construction of water-works and sewerage system; bids in following order: Complete installation of water-works, all materials to be furnished by contractor; complete installation of sewerage system, all materials to be furnished by contractor; complete installation of water-works, all material to be furnished by municipality; complete installation of sewerage system, all

materials to be furnished by municipality; plans and specifications from J. C. Dunham, Clerk of Mayor and Council; Penniman & Fairly, engineers, Marine Bank Bldg., Baltimore, Md.; Truman West, Mayor.

Shuttle Manufacturers.—M. F. Morphew, Marion, N. C., wants names and addresses of manufacturers of dogwood shuttles.

Signs.—See "Electric Signs."

Starch Machinery.—M. M. Demirjian, 43 White St., New York, or Aintab, Turkey, wants catalogues and prices on starch-manufacturing machinery.

Steam Shovel.—A. V. Kaiser & Co., 739 Drexel Bldg., 5th and Chestnut Sts., Philadelphia, Pa., in market for 36-inch gauge or traction Little Giant steam shovel; 1½ yard dipper; second-hand.

Steam Traps.—Washington Oil Mill, Washington, Ga., wants manufacturers' catalogues and prices on steam traps.

Steel Furniture.—See "Furniture."

Syrup Machinery, etc.—Egwanulti Manufacturing Co., Abbeville, La., wants catalogues and prices on machinery for manufacturing and canning syrup. (Engine and boiler not needed.)

Tank.—Greer Ice & Fuel Co., Greer, S. C., wants prices on tank.

Telephone Equipment.—People's Telephone Co., Wakefield, Va., wants telephones, wire brackets, etc., for construction of line.

Theater Curtain.—C. F. Hagan, Bristol, Tenn., wants bids on fireproof proscenium curtain.

Tile Machinery.—T. B. Rayburn, 814 Main St., Little Rock, Ark., wants prices on machinery for manufacturing tile.

Turpentine Machinery.—George E. Danforth, Orchard Park, N. Y., wants information about machinery and equipment for manufacturing turpentine, etc., from pine stumps.

Vacuum Cleaning System.—Supervising Architect James Knox Taylor, Treasury Department, Washington, D. C., will open proposals March 26 for installation of vacuum cleaning system for United States postoffice and courthouse at Atlanta, Ga. Drawings and specifications at architect's office and office of superintendent at Atlanta.

Water-works.—See "Electric Light Plant, etc."

Water-works.—See "Sewerage System, etc."

Wharf Construction.—J. G. Sutton, City Secretary, Beaumont, Texas, will receive bids until April 6 for construction of wharf about 700 feet long on river front, from Pearl street to eastern boundary line of old city of Beaumont; estimated cost, \$41,000; certified check, \$1000; plans, specifications and bidding sheets at office of C. L. Scherer, City Engineer.

Wine Machinery.—M. N. Demirjian, 43 White St., New York, or Aintab, Turkey, wants catalogues and prices on wine-manufacturing machinery.

Woodworking Machinery.—See "Planer and Matcher" and "Saw."

Woodworking Machinery.—Hamilton County Board of Education, care of Prof. J. B. Brown, superintendent county courthouse, Chattanooga, Tenn., wants catalogues and prices on wood lathes.

Woodworking Machinery.—Vonderau Manufacturing Co., Hazlehurst, Ga., wants second-hand planer and matcher; 6x12-inch or 14-inch; standard make.

INDUSTRIAL NEWS OF INTEREST

Seeking Location for Sanitarium.

Chas. H. Towson of Lancaster, Ohio, states that he represents parties who are seeking a Southern location for a sanitarium. A site with buildings and medicinal water is preferred.

Buying Northern Cranes.

The Specialty Foundry Co., Zellenople, Pa., has added a five-ton and a one-ton traveling Northern crane to its foundry equipment, purchasing the crane from the Northern Engineering Works of Detroit, Mich.

The Galax Agency.

The Galax Real Estate and Insurance Agency has been formed at Galax, Va., by A. M. Wolts, H. P. Swartz and T. Gray Kyle. The agency is prepared to correspond relative to representing fire-insurance companies.

Contractors' Machinery for Foreign Users.

A party of experience in selling dirt-moving tools and contractors' machinery wants to arrange to handle the equipments offered by some leading manufacturer. For infor-

mation address "Expert," care of the Manufacturers' Record.

Ferry Property Offered.

The Norfolk County Ferries are offered for lease for a term of 10 years. The property includes wharves, boats, docks, etc. For information address L. P. Slater, City Clerk, or Alvah H. Martin, County Clerk, Portsmouth, Va. They will hold a public sale on March 30.

Engineer for Pumping Station.

The Scofield Engineering Co., Arcade Bldg., Philadelphia, has been retained as consulting engineer by the Millard Construction Co., Philadelphia, in connection with the contract for the erection of the 7th-street and Lehigh-avenue high-pressure pumping station for the city of Philadelphia. Construction will begin immediately.

Dry Pressed and Impervious Bricks.

In referring to the Columbus (Ga.) Brick & Terra-Cotta Co. last week it was erroneously stated that the company manufactures dry-pressed impervious bricks. Dry-pressed bricks are never impervious, but

the company manufactures both kinds—dry pressed and impervious bricks.

Woodworking Plant for Sale.

Manufacturers who may contemplate operating in the South are invited to address the Jett Bros. Contracting Co., Mobile, Ala., for information regarding a woodworking plant offered. The plant is equipped for producing sash, doors, blinds and interior wood work, and is said to have a large local trade.

For a Technical School Graduate.

An opportunity for a technical school graduate is offered by a company operating mines of steatite, talc, kaolin, etc., in Arkansas. The company wants a graduate interested in mechanical engineering, chemical technology and ceramics who is prepared to invest to some extent. For full details address P. O. Box No. 126, Little Rock, Ark.

A \$16,000 Bridge Contract.

The U. S. Engineer's office at Wilmington, N. C., has awarded contract at \$16,347 to the G. & W. Manufacturing Co., 26 Cortlandt St., New York, for the construction of the through truss swing steel bridge over Core Creek, which is being dredged near Beaufort, N. C., for the inlet waterway from Pamlico Sound to Beaufort. The contract includes the steel work, concrete abutments, pile-driving and excavating, and is to be completed in seven months.

Increasing Geo. P. Clark's Facilities.

Facilities for manufacturing are being increased in the plant of the Geo. P. Clark Company, manufacturer of trucks and casters, Windsor Locks, Conn. This company has installed a belt sander for sanding bent truck handles, to effect a saving over the old process of sanding; a double cut-off saw, saving double time over the old method by a single saw; a heavy matcher, which will bring the company's boxes and trucks to a higher standard and increase its production by one-third.

Manning, Maxwell & Moore at Atlanta.

A branch has been established at Atlanta, Ga., by Manning, Maxwell & Moore, manufacturers of and dealers in railway and machinists' tools and supplies and electric traveling cranes, 85-89 Liberty street, New York. The branch, which will be located at 109 Park street, will be in charge of W. S. Davis, who is well known to the machine-tool trade of the South, and will cover North and South Carolina, Georgia, Florida, Alabama and Eastern Tennessee.

Frank B. Gilbreth's Important Contract.

The contract for the construction work involved in the hydro-electric development of the Grand Falls Power Co. on the St. John River at Grand Falls, New Brunswick, has been awarded to Frank B. Gilbreth, 34 West 26th St., New York. The total cost of the construction work and installation of equipment will be over \$5,000,000. The chief engineer is John B. McRae, Ottawa, Canada, and the electrical engineer Ralph Merston, New York city.

Southern-Made Showcases.

Among the leading manufacturers of the South is the National Showcase Co. of Columbus, Ga. This company has established a reputation for its product throughout the South and in other parts of the country. It is now introducing the "K D" showcases, representing a new idea—that of manufacturing a "knocked-down" showcase. The result is accomplished by a simple but effective device, embodying an automatic locking plant which secures slides, ends and bases at the inside joints. Dealers and users of showcases are invited to investigate.

Concrete Piling Contracts.

Thomas O. Horton, president and general manager of the New York & Richmond Gas Co., has awarded to the Raymond Concrete Pile Co. of New York and Chicago the contract for placing Raymond concrete piles in the foundations of a gas holder that his company is about to erect at Clifton, N. Y. Charles W. Leavitt, Jr., New York, architect and engineer of the grandstand that is to be erected at Schenley Park, Pittsburg, for the Pittsburg Baseball Association, has awarded the Raymond Concrete Pile Co. the contract for placing Raymond concrete piles in the foundation of that structure.

The Nilson-Miller Company.

The Nilson-Miller Company of Hoboken, N. J., has been incorporated with a capital of \$25,000, and is located at 1309 Hudson street, in the shop formerly occupied by W.

D. Forbes & Co. It will conduct an engineering and general machine shop, making a specialty of designing and building to order electrical apparatus, gasoline engines, etc., for commercial vehicle, marine and stationary use; will also undertake experimental work and special machinery. L. G. Nilson, chief engineer of the Strang Gas Electric Car Co., 15 Wall St., New York, has been elected president of Nilson-Miller Company; he will also continue as consulting engineer for the Strang Company.

Interested in Forest Preservation.

The importance of forest preservation is appreciated by no one more than by those who are vitally interested in hydro-electric development throughout the country. Many individuals are exerting themselves in this cause, and the Appalachian National Forest Association continues to enlarge its membership. An example of a manufacturing company interested in this preservation is the Crocker-Wheeler Company of Ampere, N. J., builder of electric-power machinery used in hydro-electric development, which has recently become a sustaining member of the association, whose object is the "perpetuation, through wise use, of the remaining forests of our country, national and State."

A Modern Southern Boiler Co.

At Montgomery, Ala., there is operated a modern boiler plant which was originally established in 1835. The plant is owned by a company which has established an extensive trade throughout the South and reports business as having greatly improved recently, with fair prospects for further improvement. The company is known as the Hartley Boiler Works, and it has recently been devoting its efforts especially to elevated tanks and towers and water-works standpipes. Its plant occupies a site 175x600 feet, and is thoroughly equipped with modern machinery for manufacturing boilers, smokestacks, tanks, standpipes and sheet-iron work generally.

Recent Taplin, Rice-Clerkin Contracts.

Some important contracts have been obtained recently by the Taplin, Rice-Clerkin Company of Akron, Ohio. They included one from the Republic Rubber Co., Youngstown, Ohio, for \$40,000 worth of cores, molds and other equipment to double the Republic capacity for manufacturing automobile tires. The Pomona (N. C.) Terra-Cotta Co. has awarded contract to the Akron company for a complete equipment of clayworking machinery for the additional Pomona plant, now in course of construction; this is the second contract from the Pomona management. The Taplin, Rice-Clerkin Company reports that its shops are operating at full capacity, and with a night shift, in the production of Climax stoves, ranges and furnaces.

The Savannah Blow Pipe Co.

Among the installations in the new shops of the Georgia Railway at Macon is an improved exhaust system and a large heating and ventilating plant. These were installed by the Savannah Blow Pipe Co. of Savannah, Ga. This company has met with wide success in the installation of its slow-speed light-power shavings-exhaust systems, and has sold many equipments to exacting purchasers. It installed a system at Whistler, Ala., for the Mobile & Ohio Railroad, at the Augusta (Ga.) Arsenal for the United States Government, and is installing a seven-unit system for Perkins Manufacturing Co., Augusta, Ga. The \$2,000,000 Atlantic Coast Line shops at Waycross were also equipped by the Savannah Blow Pipe Co., which installed for the Masonic Temple at Savannah an improved heating and ventilating system operated by two direct-connected electric motors, the air being heated by electric heaters. This is said to be the first system of its kind ever installed. In addition to manufacturing exhaust and heating and ventilating systems, the company produces dust separators, tanks, ventilators, smokestacks, etc.

Solvay Protective Paints.

In the manufacture of soda ash, caustic soda, acids, ammonia products and other chemicals by the Solvay Process Co., Syracuse, N. Y., and in the operation of retort coke-oven plants by the Semet-Solvay Company, also of Syracuse, both of these companies have had to contend with almost every conceivable element of corrosion found in solid, liquid and gaseous form. In endeavoring to protect their own plants paints were perfected which have proven so successful in offsetting the ravages of corrosion that they have been placed on the market.

Briefly speaking, these paints include "Crysolite" protective paint for outside work as a preservative coating for structural steel, corrugated iron, metal roofs, bridges, blast furnaces, etc., which are exposed to severe weather conditions; "Solvay" acid-resisting paint for the inside of chemical plants, paper mills, foundries or any building where corrugated iron, structural steel or machinery are exposed to dampness and corroding acid fumes; "Solvay" stack paint, which is a heavier-bodied form of "Crysolite," for hot stacks, boiler fronts, steam pipes, etc.; "Solvay" mine and tunnel paint for pipes, pumps, machinery, mine cars, etc., exposed to the dampness and acid conditions with which nearly every mine has to contend; "Solvay" hydraulic paint for protection of iron and steel when wholly or partly submerged in either salt or fresh water or imbedded in concrete, and "Solvay" shop paint, for all classes of painting where quick drying is essential. The basis of these paints is a carefully prepared retort coke-oven pitch from which every corrosive constituent of coal tar has been removed. This treated pitch is reduced with neutral hydrocarbon oils obtained in the process of distillation, thus giving a neutral homogeneous carbon varnish which resists the severe conditions of service. Samples of these paints will be sent free of charge to responsible parties by the Semet-Solvay Company, 100 William St., New York, and Marquette Bldg., Chicago.

TRADE LITERATURE.

Des Moines Bridge & Iron Co.

People who are interested in water-works machinery and supplies, as well as in structural steel and iron work of various kinds, are invited to send for a copy of the new illustrated catalogue issued by the Des Moines Bridge & Iron Co., Des Moines, Iowa. The publication presents descriptions of the company's products, which have become well known throughout the country for their meritorious features. Besides manufacturing, the company acts as designing engineer or contractor for water-works in the Mississippi Valley territory, and has been connected with the construction of more than 200 plants, besides having constructed water towers in nearly all the States. The Des Moines Bridge & Iron Co. manufactures and contracts for bridges, water towers, standpipes, railroad water supplies, turntables, roof trusses and structural iron and steel of all kinds for buildings.

The Smith Concrete Mixer.

The continued developments in concrete construction are causing increasing demands for time and labor-saving machinery used in mixing and handling concrete. This condition the T. L. Smith Company aims to meet, and in its concrete mixer claims to have an equipment that embodies factors insuring maximum efficiency and minimum expenditure in concrete production. The Smith mixer has already established an enviable reputation among exacting users of such machinery, and it is being improved by the manufacturer whenever conclusive evidence is presented for the necessity of any changes or additions. It is a batch mixer of the rotating-drum type, constructed of the best materials, with improved tilting mechanism, drum, blades, power transmission, feed spout, bearings and other features insuring satisfaction of users. A catalogue completely illustrating and describing the machine is being distributed by the T. L. Smith Company (successor to Contractors' Supply & Equipment Co.); home offices in Majestic Bldg., Milwaukee, and sales offices in Old Colony Bldg., Chicago.

Coal-and-Ashes Handling.

One of the necessities of modern power and other plants is the equipment for handling the coal and ashes. Progressive operators of plants where coal is used and ashes accumulate do not fail to acquaint themselves with the most efficient and economical means of handling the materials. In this connection it is interesting to announce that the Jeffrey Manufacturing Co. of Columbus, Ohio, is distributing its catalogue, 32-A, which illustrates and describes the Jeffrey designed and built machinery for handling coal and ashes. These equipments have been tested under most exacting conditions and have proven their superiority. They have been installed for some of the most important and largest plants in the country and should be investigated by every purchasing officer who contemplates contracting for equipment of their class. The Jeffrey catalogue is illustrated by photographic views of complete handling machinery and its various parts and of characteristic installations in various parts of the country.

A Complete Export Shipping Guide.

Manufacturers and dealers who are interested in information relative to shipments out of the United States will find complete and authentic data in the Exporters' Encyclopedia for 1909. This publication, now in its fifth year, is an authority among export shippers and has been endorsed by leading transportation companies, manufacturers, dealers and others engaged in export trade. The publisher also issues each month the Exporters' Review, which is sent to all subscribers to the encyclopedia. The Review presents current information enabling those interested in export shipping to be fully informed from time to time as to changes or additions of new facilities that may be offered for exporting. It is stated that the encyclopedia answers practically every question that may arise in making export shipments, including dock, fire and marine insurance, packing and consigning goods, marking packages, bills of lading, forwarding and consular documents, tables of metric weights and measures, foreign weights and measures with their American equivalents, values of foreign coins, postal rates, parcels post, comparative tables of pounds and kilograms, cable rates, etc. The book is cloth bound and contains 640 8x5½-inch pages, all conveniently arranged. The Exporters' Encyclopedia Co., 78 Broad St., New York, is the publisher.

Steel Corporation in the South.

[Wall Street Summary.]

In the steel and iron trade circles that are without the zone of the United States Steel Corporation's influence there is but one opinion about the acquisition by that organization of the Tennessee Coal, Iron & Railway Co.'s properties, and that it is the most sagacious step it has taken in several years, being immeasurably of more potential scope and profit than the acquisition of the Hill ore lands in the Northwest and the Gary, Ind., undertakings. To the South the development of her iron and steel industries by the Steel Corporation, which has the record of having expended two dollars for new construction and increase of surplus for each dollar distributed as dividends, means quite as much as has been made of it by the newspapers and trade periodicals of the Southern States, which always see clearly toward the future. The large contracts for open-hearth rails and other forms of steel which condition the Southern steel mills reflect the fact that the most exacting railroads and consumers of crude, semi-finished and finished open-hearth steel know the worth of materials made from Southern ores.

In its statement of what it had accomplished in the purchase of the Tennessee Coal, Iron & Railroad Co.'s properties, the United States Steel Corporation gave out only the usual skeleton report, which it always issues. That meagre report is understood in banking and steel-making circles to have inspired the Federal inquiry. The misinformed public opinion sown at the time of the merger was that the Steel Corporation had acquired a monopoly of Southern iron ores, coal and limestone deposits. As a matter of fact, the independent interests in the South own collectively very much more than passed to the Steel Corporation.

The iron-ore deposits which passed into the hands of the United States Steel Corporation under the transaction are estimated by engineers who have made borings at all the properties as 750,000,000 tons. These ores have exceptional values for making foundry iron and open-hearth steel. The value of these deposits is understood when it is remembered that the total consumption of iron ores in his country last year was 34,500,000 tons, of an estimated value of \$61,500,000. One dollar a ton is a low valuation for the Southern iron-ore deposits controlled by the Steel Corporation. The total iron-ore reserves of the Southern States approximate 10,000,000,000 tons, or four times those which are credited to the Lake Superior

ranges, so that the Steel Corporation is far from controlling the South's ore resources.

The ore deposits in the South that are controlled by the Steel Corporation carry so much lime as to be almost self-fluxing, which is not the case with the Great Lakes ores. The coal and limestone deposits that went with these transfers to the Steel Corporation contain material enough to smelt all the iron ores. More important yet, the iron ores, fuel and fluxing material are all within rifle-shot of the iron and steel plants.

Engineers who know the exact costs of making iron and steel at all points in North America state that the cost of assembling at Pittsburg and several Western steel-making centers the materials for a ton of steel is \$3.25. The cost for the same service in the Alabama district is only \$1.14. The average haul of most of the iron ores consumed at Pittsburg is 1200 miles. For all furnaces that depend upon lake ores the dear and long water haul over a route that is closed by climatic conditions five months in a year and the cost of sending ore ships up the lakes light is a high factor against Eastern and Western iron and steel-makers. Yet the Lake Superior ores furnish 75 per cent. of the quantity yearly consumed. As long as Bessemer steel constituted by far the greater part of the country's output the lake ores, being especially suitable for Bessemer products, were regarded as of very much greater value than the Southern ores. But as open-hearth steel has been making enormous gains, and in many trades has superseded Bessemer, Southern ores, which are especially valuable for open-hearth steel, have risen in potential value as assets for owners who look for the time, not far away, when the South and not Pittsburg nor the West under the natural course of the development will produce the greater share of the country's pig-iron and steel.

Mr. Walter Sharp of Abbott Morris & Co. of Norfolk, Va., has prepared for the *Landmark* of that city a statement of new industries which have materialized in that section during the past few months. They include the purchase of a site for a box and lumber plant, of a site for a fertilizer factory, of a site for a \$300,000 pipe plant, the building of a plant to make butter dishes out of gum logs, of a hosiery mill and dye works, the installation of machinery for silk mills, plans for a branch cement works and for terminal improvements.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,
Baltimore, Md., March 10.

The Baltimore stock market has been active during the past week. United Railways issues and Cotton Ducks have displayed advances. In the trading United Railways common sold from 10 to 11 1/4; do. trust certificates, 10 1/4 to 11 1/4; do. incomes, 53 1/4 to 54, reacting to 53 1/4; do. funding 5s, 79 1/2 to 80 1/4; do. scrip, 80 to 81; United 4s, 87 1/2 to 88, reacting to 87 1/4; Consolidated Gas, Electric Light & Power common, 30; do. preferred, 77 1/2; do. 4 1/2s, 84 1/2 to 84 3/4; Consolidated Gas 6s, 102 1/4 to 101 1/2; do. 5s, 112; do. 4 1/2s, 93 1/2 to 93 3/4; Seaboard Company common, 13; Seaboard 4s, 65 1/2 to 65 1/4; do.

three-year 5s, 96 1/2; Consolidated Cotton Duck common, 6 1/2 to 7 1/2; do. preferred, 24; Mt. Vernon-Woodberry Cotton Duck 5s, 78 1/4 to 80; G. B. S. Brewing incomes, 10 1/2 to 10; do. 1st, 43 1/2.

Bank stock sold as follows: Bank of Baltimore, 122; Western, 34 1/2 to 35; Marine, 42 to 43; Merchants', 170; Second National, 193. Maryland Casualty sold at 85; Fidelity & Deposit, 152 1/2; Mercantile Trust, 137 to 136.

Other securities were traded in thus: Atlantic Coast Line Consolidated 4s, 97 to 97 1/2; City & Suburban (Baltimore) 5s, 109 1/4 to 109 1/2; Colorado & Southern 4s, 98 1/2; Georgia & Alabama Consolidated 5s, 103 to 103 1/2; Memphis Street Railway 5s, 96 to 96 1/2; United Railways of San Francisco 4s, 74; Consolidation Coal, 94 1/2 to 96; Atlantic Coast Line new 4s, certificates, 85 to 86 1/2; Detroit United 4 1/2s, 84 1/2; Baltimore City 3 1/2s, 192s, 100 1/4; do. do. 1936, 100 1/4; Norfolk Railway & Light stock, 19; Baltimore City 5s, 1916, F. L., 107; Western Maryland Railroad stock, 10 1/4 to 10 1/2; Baltimore Electric 5s, stamped, 90 to 90 1/4; Georgia Southern & Florida second preferred, 70; Northern Central Railway stock, 105; Charleston Consolidated Electric 5s, 86 1/2; Maryland & Pennsylvania 4s, 91 1/2; Baltimore City 3 1/2s, 1980, 93 1/4 to 94 1/4; Maryland Telephone 1st 5s, 98 to 98 1/2; Atlantic Coast Line of Connecticut 4s, 5-20s, 88; Charlotte, Columbia & Augusta 1st 5s, 110 1/4; Georgia Southern & Florida common, 26; Houston Oil common, 8 to 8 1/4; Atlanta Consolidated Street Railway 5s, 105 1/4; West Virginia Central 6s, 102 1/2; George's Creek Coal & Iron, 85; Anacostia & Potomac 5s, guaranteed, 106 to 107; Carolina Central 4s, 93 1/2; Knoxville Traction 5s, 105 1/2; Baltimore City 3 1/2s, 1940, 100 1/4; Anacostia & Potomac 5s, 104 to 104 1/2; City & Suburban (Washington) 5s, 105 1/4; Milwaukee Electric Railway & Light refunding 4 1/2s, 96 1/4; Baltimore City 5s, 1916, W. L., 107 1/2; Georgia Southern & Florida 5s, 109 1/4.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended
March 10, 1909.

Railroad Stocks.	Par	Bid.	Asked.
Atlantic Coast of Conn.	100	260	
Georgia Sou. & Fla.	100	20	26
Georgia Sou. & Fla. 1st Pfd.	100	92	102
Georgia Sou. & Fla. 2d Pfd.	100	69 1/2	70
Norfolk & Portsmouth Trac.	100	14	
Norfolk Railway & Light	25	18 1/2	
Seaboard Company Common	100	12 1/2	12 3/4
Seaboard Company 2d Pfd.	100	23	
United Rys. & Elec. Co.	50	10 1/2	11 1/4
Western Maryland	50	10 1/2	10 3/4
Bank Stocks.			
Citizens' National Bank	10	39	40
Farmers & Mer. Nat. Bank	40	48	
German-American Bank	100	108	
Merchants' National Bank	100	170	
National Bank of Baltimore	100	124	
National Exchange Bank	100	163 1/2	
National Howard Bank	10	13	
National Marine Bank	30	41	
National Mechanics' Bank	10	29	
Third National Bank	100	122	
Western National Bank	30	34 1/2	

Trust, Fidelity and Casualty Stocks.	Par	Bid.	Asked.
Continental Trust	100	192	197 1/2
Fidelity & Deposit	50	152 1/2	153
International Trust	100	125	
Maryland Trust	100	69	
Mercantile Trust & Deposit	50	136	137
U. S. Fidelity & Guaranty	100	111 1/2	115

Miscellaneous Stocks.	Par	Bid.	Asked.
Ala. Con. Coal & Iron	100	35	
Ala. Con. Coal & Iron Pfd.	100	80	
Con. Cotton Duck Common	50	7	8
Con. Cotton Duck Pfd.	50	23 1/2	25 1/2
Con. Gas, Elec. Lt. & P. Pfd.	100	76	77 1/2
Consolidation Coal	100	95 1/2	100
G. B. S. Brewing Co.	100	3	
Georges Creek Coal	100	84	87

Railroad Bonds.	Par	Bid.	Asked.
Atlantic & Charlotte Est. 4 1/2s	100	97	97 1/2
Atlantic Coast Line 1st 4s, 1902	100	86	86 1/2
Atlantic Coast Line new 4s, Cifs.	100	87 1/2	88 1/2
At. Coast Line Com. 4s, Cifs., 5-20s	100	87 1/2	88 1/2
At. Coast Line (Conn.) 5s, Cifs.	100	83	86
At. Coast Line (Conn.) 4s, Cifs.	100	93 1/2	93 3/4
Charleston & W. Car. 5s, 1946	100	108	109
Charlotte, Col. & Aug. 1st 5s, 1910	100	110 1/4	111
Charlotte, Col. & Aug. 7s, 1910	100	102 1/2	
Coal & Coke Railway 5s	100	109 1/4	111
Col. & Green. 1st 6s, 1916	100	109 1/4	111
Florida West Shore 1st 5s, Gtd.	100	84	87
Georgia & Alabama 5s, 1943	100	103	103 1/2
Georgia, Car. & North. 1st 5s, 1923	100	105 1/2	105 3/4
Georgia Pacific 1st 6s, 1922	100	115 1/2	
Georgia South. & Fla. 1st 5s, 1945	100	109	110
Maryland & Penn. 4s, 1951	100	99	92 1/2
Richmond & Danv. Gold 6s, 1915	100	110	
Seaboard Air Line 4s, 1950	100	65	65 1/2
Seaboard Air Line 5s, 10-year, 1911	100	96	96 1/2
Seaboard Air Line 5s, 3-year	100	96 1/2	96 3/4
Seaboard & Roanoke 5s, 1926	100	111 1/2	

South Bound 5s, 1941	105	106 1/2
Southern Railway Con. 5s, 1994	113	
Virginia & Carolina 5s, 1902	95	97
Virginia Midland 2d 6s, 1911	102 1/2	103 1/2
Virginia Midland 5th 5s, 1928	108	109
Western Maryland 4s, 1952	83 1/2	84 1/2
West Va. Cent. 1st 6s, 1911	102 1/2	
Wilmington & Weld. Gold 5s, 1931	114	

Street Railway Bonds.	Par	Bid.	Asked.
Anacostia & Potomac 5s, 1949	103 1/2	104 1/2	
Anacostia & Potomac 5s, Gtd.	106 1/2	107 1/2	
Atlanta Con. St. Ry. 5s	105 1/2	105 1/2	
Augusta Ry. & Elec. 5s, 1940	100 1/2	102	
Balto. City Pass. 5s, 1911	101		
Central Ry. Con. 5s (Balto.), 1932	112 1/2	113 1/2	
Charleston City Ry. 5s, 1923	105	106 1/2	
Charleston City Elec. 5s, 1939	87	88	
City & Suburban 5s (Balto.), 1922	109 1/2	110	
City & Suburban 5s (Wash.), 1948	105 1/2	106	
Knoxville Traction 1st 5s, 1928	105 1/2	106 1/2	
Lexington Railway 1st 5s, 1949	85		
Maryland Electric Railways 5s	94	96 1/2	
Memphis Street Railway 5s	95 1/2	96 1/2	
Metropolitan 5s (Wash.), 1925	111 1/2		
Norfolk & Portsmouth Trac. 5s	97		
Norfolk Railway 1st 5s, 1941	85 1/2	90 1/2	
Norfolk Street Railway 5s	104 1/2		
Richmond Traction 5s	103 1/2		
United Railways 1st 4s, 1949	87 1/2	87 1/2	
United Railways Inc. 4s, 1949	53	53 1/2	
United Railways Funding 5s	79 1/2	80 1/2	

Miscellaneous Bonds.	Par	Bid.	Asked.
Baltimore Electric 5s, stfd.	90	90 1/2	
Consolidated Gas 6s, 1910	101 1/2	102	
Consolidated Gas 5s, 1939	111	112	
Consolidated Gas 4 1/2s	93 1/2	93 1/2	
Con. Gas, Elec. Lt. & P. 4 1/2s	84 1/2	86	
G. B. S. Brewing 1st 4s	43 1/2	44	
G. B. S. Brewing 1st 5s	10	12	
Maryland Telephone 5s	98	98 1/2	
Mt. Vernon-Woodbury Cot. Duck 5s	79 1/2	80	
United Elec. Lt. & P. 4 1/2s	95		

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for
Week Ending March 8.

Abbeville Cotton Mills (S. C.)	Bid.	Asked.
Aiken Mfg. Co. (S. C.)	75	
American Spinning Co. (S. C.)	145	
Anderson Cotton Mills (S. C.)	50	60
Arkwright Mills (S. C.)	100	102
Augusta Factory (Ga.)	65	70
Avondale Mills (Ala.)	115	125
Belton Mills (S. C.)	120	
Bibb Mfg. Co. (Ga.)	114	
Brandon Mills (S. C.)	130	
Cabarrus Cotton Mills (N. C.)	130	
Chadwick-Hoskins Mfg. Co. (N. C.)	86	90
Chadwick-Hoskins Mills Co. (N. C.)		100
Chiquola Mfg. Co. (S. C.)	130	132
Clifton Mfg. Co. (S. C.)	103	106
Clifton Mfg. Co. (S. C.) Pfd.	99	101
Clinton Cotton Mills (S. C.)	105	
Courtenay Mfg. Co. (S. C.)	91	
Dallas Mfg. Co. (Ala.)	100	105
Darlington Mfg. Co. (S. C.)	70	76
Drayton Mfg. Co. (S. C.)	100	
Eagle & Phoenix Mills (Ga.)	121	
Easley Cotton Mills (S. C.)	151	
Enoree Mfg. Co. (S. C.)	59	69
Enoree Mfg. Co. (S. C.) Pfd.	94 1/2	
Enterprise Mfg. Co. (S. C.)	82	90
Exposition Cotton Mills (Ga.)	240	
Gaffney Mfg. Co. (S. C.)	70	
Gainesville Cotton Mills (Ga.)	48	
Granby Cot. Mills (S. C.) 1st Pfd.	45	
Granville Mfg. Co. (S. C.)	155	160
Greenwood Cotton Mills (S. C.)	65	
Grendel Mills (S. C.)	114	118
Henrietta Mills (N. C.)	160	175
King Mfg. Co., John P. (Ga.)	96	100
Lancaster Cotton Mills (S. C.)	125	146
Lancaster Cot. Mills (S. C.) Pfd.	96	98
Langley Mfg. Co. (S. C.)	85	
Laurens Cotton Mills (S. C.)	137 1/2	
Limestone Mills (S. C.)	140	150
Lockhart Mills (S. C.)	78	81
Lockhart Mills (S. C.) Pfd.	96	
Loray Mills (N. C.) Pfd.	90	95
Marlboro Cotton Mills (S. C.)	76 1/2	
Mayo Mills (N. C.)	165	185
Mills Mfg. Co. (S. C.)	103 1/2	
Mills Mfg. Co. (S. C.) Pfd.	112	120
Monarch Cotton Mills (S. C.)	100	102
Newberry Cotton Mills (S. C.)	130	140
Norris Cotton Mills (S. C.)	115	120
Olympia Cot. Mills (S. C.) 1st Pfd.	70	80
Orangeburg Mfg. Co. (S. C.) Pfd.	80	86
Orr Cotton Mills (S. C.)	105	108
Pacolet Mfg. Co. (S. C.)	130	135
Pacolet Mfg. Co. (S. C.) Pfd.	90	96
Pelzer Mfg. Co. (S. C.)	100	
Piedmont Mfg. Co. (S. C.)	171	175
Poe Mfg. Co. (S. C.)	140	
Richland Cot. Mills (S. C.) Pfd.	45	
Raleigh Cotton Mills (N. C.)	100	
Roanoke Mills (N. C.)	168	
Saxon Mills (S. C.)	123	125
Sibley Mfg. Co. (Ga.)	52 1/2	
Spartan Mills (S. C.)	132	140
Springstein Mills (S. C.)	100	
Tucapau Mills (S. C.)	225	250
Trion Mfg. Co. (Ga.)	140	
Union-Buttall Mills (S. C.) 1st Pfd.	58 1/2	65
Victor Mfg. Co. (S. C.)	120	125
Warren Mfg. Co. (S. C.)	93 1/2	95
Warren Mfg. Co. (S. C.) Pfd.	100	
Washington Mills (Va.)	25	30
Washington Mills (Va.) Pfd.	130	140
Whitney Mfg. Co. (S. C.)	107	
Williamson Mills (S. C.)	107	
Winchester Mills (N. C.)	125	136
Woodruff Cotton Mills (S. C.)	124	130
Woodside Cotton Mills (S. C.)	102	104
Woodside Cotton Mills (S. C.) Pfd.	95	100

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C.,
for Week Ending March 8.

Abbeville Cotton Mills (S. C.)	Bid.	Asked.
Aiken Mfg. Co. (S. C.)	70	
American Spinning Co. (S. C.)	145	
Anderson Cotton Mills (S. C.)	57	61
Arcadia Mills (S. C.)	92	
Arkwright Cotton Mills (S. C.)	109	105
Augusta Factory (Ga.)	65	70
Avondale Mills (Ala.)	110	125
Belton Mills (S. C.)	116	
Brandon Mills (S. C.)	145	
Cabarrus Cotton Mills (N. C.)	130	130
Chadwick Mfg. Co. (N. C.) Pfd.	103	
Chiquola Mfg. Co. (S. C.)	127	130

Clifton Mfg. Co. (S. C.)	101	101
Clifton Mfg. Co. (S. C.) Pfd.	99	103
Clinton Cotton Mills (S. C.)	105	105
Columbus Mfg. Co. (Ga.)	98	98
Courtenay Mfg. Co. (S. C.)	97	97
Dallas Mfg. Co. (Ala.)	96	96
Darlington Mfg. Co. (S. C.)	70	75
Converse Co., D. E. (S. C.)	112	112
Drayton Mills (S. C.)	100	100
Eagle & Phoenix Mills (Ga.)	120	127
Easley Cotton Mills (S. C.)	145	150
Enoree Mfg. Co. (S. C.)	50	63
Enoree Mfg. Co. (S. C.) Pfd.	100	100
Enterprise Mfg. Co. (Ga.)	82	90
Exposition Cotton Mills (Ga.)	240	240
Gaffney Mfg. Co. (S. C.)	70	73
Gainesville Cotton Mills (Ga.)	55	55
Granby Cot. Mills (S. C.) 1st Pfd.	45	45
Granville Mfg. Co. (S. C.)	100	105
Greenwood Cotton Mills (S. C.)	115	115
Grendel Mills (S. C.)	109	118
Hartsville Cotton Mill (S. C.)	123	123
Henrietta Mills (N. C.)	160	175
Inman Mills (S. C.)	105	110
Lancaster Cotton Mills (S. C.)	110	125
Lancaster Cot. Mills (S. C.) Pfd.	91	96
Langley Mfg. Co. (S. C.)	85	85
Laurens Mills (S. C.)	140	140
Limestone Mills (S. C.)	141	141
Lockhart Mills (S. C.)	78	82
Lockhart Mills (S. C.) Pfd.	95	100
Loray Cotton Mills (S. C.) Pfd.	93	95
Marlboro Cotton Mills (S. C.)	76	86
Mills Mfg. Co. (S. C.)	100	100
Molokoh Mfg. Co. (S. C.)	96	100
Monaghan Mills (S. C.)	115	115
Monarch Cotton Mills (S. C.)	100	103
Newberry Cotton Mills (S. C.)	130	145
Ninety-Six Cotton Mills (S. C.)	115	115
Norris Cotton Mills (S. C.)	120	120
Odell Mfg. Co. (N. C.)	90	90
Olympia Cotton Mills (S. C.)	125	135
Orr Cotton Mills (S. C.)	104	104
Pacolet Mfg. Co. (S. C.)	97	100
Pacolet Mfg. Co. (S. C.) Pfd.	97	100
Pelzer Mfg. Co. (S. C.)	159	157
Piedmont Mfg. Co. (S. C.)	175	180
Poe Mfg. Co., F. W. (S. C.)	125	130
Spain Mills (S. C.)	122	125
Sibley Mfg. Co. (Ala.)	63	63
Spartan Mills (S. C.)	132	135
Trion Mfg. Co. (Ga.)	132	140
Tuapeau Mills (S. C.)	230	250
Union-Buffalo (S. C.) 1st Pfd.	50	60
Union-Buffalo (S. C.) 2d Pfd.	50	50
Victor Mfg. Co. (S. C.)	122	130
Warren Mfg. Co. (S. C.)	92	93
Warren Mfg. Co. (S. C.) Pfd.	100	100
Washington Mills (Va.)	25	25
Washington Mills (Va.) Pfd.	100	100
Whitney Mfg. Co. (S. C.)	100	145
Wicacaset Mills (N. C.)	125	135
Woodruff Cotton Mills (S. C.)	124	130
Woodside Cotton Mills (S. C.)	90	101
Watts Mills (S. C.)	90	91
Williamston Mills (S. C.)	165	110

T. E. McGarity, J. S. Garvin, T. B. Gaskins, R. W. Blalock and J. J. Little.

Deport, Texas.—A new bank is reported organized by John R. Westbrook, Wm. Eudy, Robert Hall, J. T. Threadgill, J. W. Cunningham, F. M. Bishop, Geo. J. Terrill, V. C. Oliver, E. O. Thompson, R. Isbell and J. D. Stevenson.

Elizabeth City, N. C.—The Mercantile Bank has begun business; capital \$30,000; George M. Scott, president; John Q. A. Wood, vice-president, and Robert S. Fearing, cashier.

Forney, Texas.—The Farmers' National Bank has been approved; capital \$50,000. The organizers are T. J. Pinson, T. Layden, M. Spellman and W. A. Brooks.

Fort Worth, Texas.—Chartered: Fort Worth State Bank; capital \$100,000; incorporators, W. Scott, J. B. Sikes, W. C. Forbess, L. B. Comer, Lee L. Russell, Marcus M. Bright, L. M. Mitchell, John C. Baker and J. C. Clopton. Winfield Scott is chairman of the board; J. B. Sikes, president; J. B. Lanier, William Bryce, L. B. Comer, Cicero Smith of Mineral Wells and Lee L. Russell, vice-presidents; Marcus M. Bright, cashier.

Galveston, Texas.—The Southern Insurance Union of Galveston, Texas, and Shreveport, La., is chartered; no stock, the organization being fraternal; incorporators, John F. Hargrove, Oscar Dowling, John F. Slatery, M. P. Hargrove, G. W. Robinson, H. B. Hearn, Leon R. Smith, W. H. Johnson, Jr., and Thomas E. Williams.

Jacksonville, Fla.—The Investment Company of Florida has published its charter; capital \$25,000; incorporators, John A. Whitner, Jr., F. G. Rush, George W. Mills, Clarence F. Low and J. W. Harris.

Kinston, N. C.—The Farmers and Merchants' Bank has begun business. L. J. Mewbourne is cashier.

La Grange, Texas.—The John Schuhmacher State Bank has been incorporated with \$100,000 capital by Louise Schuhmacher, H. C. Schuhmacher, Leo Frede, H. Amberg and C. J. von Rosenberg.

Lexington, Ky.—The Bank of Kentucky has organized with directors thus: Fon Rodgers, Pikeville, Ky.; Lon Rodgers, Milton, Ky.; W. L. Franklin, Glensboro, Ky.; Dr. J. C. Willis, Lexington, Ky.; Judge Matt Walton, Lexington, Ky.; C. W. Bell, Frankfort, Ky.; W. R. Lane, Winchester, Ky.; Thomas M. Owsley, Lexington, Ky., and J. E. Eastin, Lexington, Ky.

Little Rock, Ark.—Chartered: State Building and Loan Association; capital \$1,000,000; directors, Charles McKee, president of the State National Bank, president; Fred T. Sutton, vice-president; S. C. Bossinger, secretary, and W. W. McLaughlin, treasurer; F. J. Reuthehuber, S. J. Beauchamp, J. B. Bateman and H. E. Cunningham.

Little Rock, Ark.—The Travelers' Building and Loan Association, capital \$500,000, has organized with directors thus: John F. Boyle, Sr., president; H. S. Spivey, vice-president; J. M. Bracy, secretary; Judge Joe Asher, treasurer; George W. Clark, auditor; Dr. B. C. Bain, W. R. Tucker, Geo. E. Shelton, J. B. Dickinson, Fred W. Allsopp, E. Star Thompson, W. B. Lillard, W. M. Kavanaugh, Joe B. Bateman and Whit D. Wall.

Lone Jack, Mo.—Bank of Lone Jack has filed articles of incorporation; capital \$15,000; Henry C. Cave, president; James R. Burns, vice-president; D. Lee Shawhan, secretary, and W. T. Thomas, treasurer. A cashier is yet to be named.

Morehead City, N. C.—P. M. Pearsall of Newbern, N. C., is reported to have filed incorporation articles for a new bank at Morehead City; capital \$10,000, which may be increased to \$50,000; incorporators, W. S. Chadwick and T. A. Uzzell of

Newbern, and T. B. Webb, W. L. Arendell, R. W. Taylor, J. B. Morton and L. L. Leary of Morehead City. A later report states charter has been granted.

Morrison, Tenn.—Chartered: The Bank of Morrison; capital \$10,000; incorporators, J. T. Darnell, J. F. Martin, B. M. Smoot, Jos. McAfee, W. T. Roach, P. W. King, J. C. Elkins, Jas. C. Smoot and G. A. J. Mitchell.

New Orleans, La.—The Excelsior Homestead Association has been incorporated with authorized capital of \$5,000,000. Paul Freund is president; M. T. Breslin, first vice-president; John H. Bowie, second vice-president; E. O. Ritson, treasurer; O. H. Simpson, secretary; Conrad G. Collins, attorney.

New Church, Va.—Incorporated: Farmers and Merchants' Bank; capital \$15,000 to \$50,000; S. T. Johnson, president; J. E. Johnson, vice-president, and C. J. Matthews, secretary.

Phoenix City, Ga.—Bank of Phoenix City has begun business; capital \$25,000; J. M. Payne, president.

Point, Texas.—Chartered: The First State Bank; capital \$10,000; incorporators, D. B. Corley, J. W. Montgomery, W. J. Schenck, J. N. White, S. S. Bowers, S. B. Brooks and B. M. McMahan.

Russellville, Tenn.—A State bank is reported being organized with \$15,000 capital. Among those interested are J. W. Davis, S. M. Isenberg, Jas. Brown, H. G. Patterson, L. M. Trantham and others.

Savannah, Ga.—The Audit Company of Georgia has organized with directors thus: President, Edward A. Richmond; vice-president, Robert S. Cope; treasurer, Frank C. Richmond; secretary, Charles Franklin; assistant secretary, George N. Spring, and Dr. W. J. Murray of Columbia, S. C.

Senatobia, Miss.—The Commercial Bank of Senatobia is reported to have begun business. D. D. Salmon is president.

Sevierville, Tenn.—Chartered: Sevier County Bank; capital \$30,000; incorporators, A. M. Paine, James W. McMahan, I. C. McMahan, A. J. Isham, J. B. Brobs, C. M. McMahan and W. C. Henderson.

Sour Lake, Texas.—Chartered: Sour Lake State Bank; capital \$15,000; R. S. Sterling, president; Gus Mobray, vice-president; H. C. Hurley, cashier. This State bank is successor to R. S. Sterling & Co.

Tishomingo, Okla.—Chartered: American State Bank; capital \$15,000; directors, B. R. Brundage, president; C. B. Burrows, vice-president; W. K. Gilstrap, cashier, and C. B. Thomas.

Washington, D. C.—The new banking firm of Harper & Co. has begun business. The members are Robert N. Harper, J. Miller Kenyon and Thomas L. Hume.

Winnsboro, S. C.—The Citizens' Investment & Trust Co. has organized with directors thus: R. Y. Turner, president; S. C. Cathcart, vice-president; J. M. Jennings, secretary and treasurer; J. E. Douglas, L. E. Owens, W. R. Rabb, T. W. Ruff, T. W. Traylor and D. V. Walker. The capital will probably be increased from \$40,000 to \$50,000.

New Securities.

Abilene, Texas.—Voted: \$40,000 of school-building bonds.

Alva, Okla.—An election will probably be held to vote on \$25,000 of 5 per cent. 20-year school-building bonds.

Americus, Ga.—Bids will be received until 7.30 P. M. March 24 by the city clerk for \$35,000 of 4 per cent. 30-year school bonds.

Anderson, S. C.—The MANUFACTURERS' RECORD is officially informed that the contemplated \$20,000 issue of school bonds is postponed for a year.

Anniston, Ala.—A movement is on foot in Calhoun county for an issue of from \$150,000 to \$200,000 of road bonds.

Austin, Texas.—Approved: \$50,000 Velasco drainage district, Brazoria county; \$50,000 Hollow Marsh drainage district, Jefferson county, and \$125,000 district No. 1, Harris county, bonds.

Austin, Texas.—H. A. Wroe of the American National Bank is reported to have purchased the remaining \$121,000 of Travis county road and bridge bonds.

Barton Heights, Va.—Bids will be received until 7 P. M. March 31 for \$15,000 of 6 per cent. 30-year water, sewer and improvement bonds. Address A. W. Martenstein, chairman finance committee.

Bartlesville, Okla.—April 6 election will be held in Washington county to vote on \$100,000 of courthouse bonds.

Baxley, Ga.—March 13 election will be held to vote on \$6000 of 6 per cent. water-works and school bonds. J. E. Overstreet is Mayor.

Beaufort, S. C.—Date for receiving bids for the \$43,000 of 5 per cent. 20-30-year water-works and electric-light-plant bonds is reported postponed until March 15.

Beaumont, Texas.—The Gulf National Bank of Beaumont is reported to have purchased at \$2650 premium \$50,000 of 5 per cent. 20-year wharf bonds.

Birmingham, Ala.—The Mayor will receive bids until noon April 8 for \$150,000 of 5 per cent. 30-year bonds. H. E. Shropshire, Jr., is city clerk.

Boydton, Va.—Reported that bids are being received for \$50,000 of 5 per cent. Clarksville district road-improvement bonds.

Bryan, Texas.—Voted: \$75,000 of bonds.

Camden, S. C.—The MANUFACTURERS' RECORD is informed that bids will be received by M. C. West, supervisor Kershaw county, until noon April 5 for \$40,000 of 5 per cent. 25-year bridge bonds.

Capitol Hill, Okla.—Bill has been introduced in City Council providing for election to vote bonds for water plant and sewerage system.

Carrizo Springs, Texas.—Reported that this (Dimmit) county is about to offer for sale \$30,000 of road bonds voted in November.

Centerville, Tenn.—Hickman county has applied to Legislature for authority to issue bonds to fund floating debt.

Charleston, Miss.—Voted: \$20,000 of water-works bonds.

Charleston, W. Va.—March 15 an election will be held to vote on \$80,000 of 4½ per cent. independent school district bonds. J. E. Chamberlain is president Board of Education.

Chattanooga, Tenn.—Owing to a mistake in date, the \$100,000 of Hamilton county bridge funding bonds, purchased by the Chattanooga Savings Bank, have been declared void, and another enabling act will have to be passed by the Legislature before bonds can be issued.

Chattanooga, Tenn.—Bids will be received until noon March 15 for \$5434.91 of 6 per cent. 1-5-year district paving bonds. W. R. Crabtree is Mayor.

Chattanooga, Tenn.—Reported that the Chattanooga Savings Bank was the highest bidder for the \$100,000 of 5 per cent. 20-year funding bonds of this (Hamilton) county at a premium of \$10,267, but the sale has not been confirmed. Another report says that the bonds will have to be readvertised, as bids should have been asked for 4½s.

Chattanooga, Tenn.—An ordinance has been passed to increase the bond issue for crosstown sewers from \$100,000 to \$125,000, and a resolution was also adopted asking the Legislature to authorize the additional \$25,000.

Clarksville, Ga.—Reported that on March 25 an election will be held to vote

on \$8000 of 5 per cent. 30-year street-improvement bonds.

Columbia, Mo.—Voted: \$97,500 of school district bonds. Francis Bros. of St. Louis are reported to have purchased them.

Columbus, Ga.—Private parties have purchased \$7000 of 6 per cent. 10-year first mortgage bonds issued by Board of Trade.

Crockett, Texas.—City is offering for sale \$25,000 of 5 per cent. 20-40-year water-works bonds. Address C. L. Edmiston, Mayor.

Crossville, Tenn.—Cumberland county has voted \$25,000 of 5 per cent. 20-year bonds in aid of Tennessee Northeastern Railroad.

Dallas, Texas.—An election will be held April 6 to vote on \$500,000 of water-works and \$200,000 of school-improvement bonds; also \$175,000 of Dallas county sewer division bonds.

Douglasville, Ga.—March 22 election will be held to vote on \$10,000 electric-light bonds.

Elberton, Ga.—The MANUFACTURERS' RECORD is informed that bids will be received until 8 P. M. April 1 for \$35,000 of school and \$5000 of electric light 5 per cent. bonds. W. F. Jones is city clerk and treasurer.

Elgin, Texas.—Spitzer & Co. of Toledo, Ohio, have been awarded \$30,000 of water-works bonds at \$350 premium.

Eminence, Ky.—Preparations are reported being made to issue \$15,000 of street-improvement bonds.

Foraker, Okla.—Spitzer & Co., Toledo, Ohio, have been awarded at \$1100 premium the \$20,000 of 6 per cent. 20-year school bonds.

Fort Worth, Texas.—The Noel-Young Bond & Stock Co. of St. Louis has purchased at par and accrued interest the \$100,000 of street-improvement and \$50,000 of school bonds.

Franklin, Ky.—Harrie Trust and Savings Bank has purchased at \$555 premium \$20,000 of sewer bonds.

Gaffney, S. C.—City will vote March 19 on water-works and sewerage bonds.

Gallatin, Mo.—City is reported to have voted \$8000 of water-works extension and improvement bonds.

Glasgow, Mo.—Voted: \$8000 of water-works improvement bonds.

Graymont, Ala.—The \$10,000 of school and \$10,000 sanitary sewer-extension bonds are reported sold.

Guthrie, Okla.—The Royal Neighbors and Modern Woodmen of America are reported to have purchased the last of the \$1,460,000 of Oklahoma State bonds, deal being made through the National Bank of Commerce at Kansas City.

Hannibal, Mo.—Reports state that local banks have purchased at private sale the \$75,000 of City Hall bonds.

Hertford, N. C.—Bids will be received up to and including April 30 for \$5000 of 6 per cent. Perquimans county bonds. Address C. W. Morgan, chairman.

Higginsville, Mo.—Voted: \$25,000 of high-school bonds.

Hillsboro, Texas.—An election is to be held April 6 to vote on \$36,000 of 40-year City Hall, street, water-works extension and school-building bonds; interest not to exceed 4½ per cent.

Hominy, Okla.—Reported that \$25,000 of school-building bonds have been sold.

Honey Grove, Texas.—Voted: \$7000 street-improvement bonds.

Hooker, Okla.—Reported that \$20,000 of water-works and electric-light bonds have been voted.

Hot Springs, Ark.—The State National Bank of Little Rock has been awarded \$50,000 of paving bonds.

[For Additional Financial News, See Pages 68 and 69.]

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\$100,000 to loan on first mortgage security at 6% in Charlotte and vicinity in amounts of \$2000 to \$20,000.

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JOHN B. H. DUNN, Asst. Cashier.

Capital, \$1,500,000
Surplus and Profits, - - - \$900,000
Deposits, \$12,000,000

Accounts of Banks, Bankers, Corporations and Individuals solicited. We invite correspondence.

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WALTER D. FOCKE, Asst. Secy. and Asst. Treas.

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Capital and Surplus, \$1,500,000

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T. K. SANDS, 2d Vice-President and Cashier.
H. A. WILLIAMS, Assistant Cashier.
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Best coal, best market and best facilities in the South.

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Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals invited.

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AGENTS IN ALL PRINCIPAL CITIES.

HARRY NICODEMUS, Sec'y and Treas.
EDWIN WARFIELD, President.

Houston, Texas.—April 3 an election will be held to vote on \$20,000 of school bonds.

Independence, Mo.—Bids will be received until 10 A. M. March 31 by Overton H. Gentry, Jr., county treasurer, for \$250,000 of 4 per cent. 20-year Jackson county hospital bonds.

Independence, Mo.—Bids to be received until 10 A. M. March 31 for \$250,000 of 4 per cent. 20-year Jackson county hospital bonds. Address Overton H. Gentry, Jr., county treasurer.

Jacksonville, Fla.—Election will be held in Duval county to vote on \$1,000,000 of road bonds.

Kansas City, Mo.—No sale was made March 3 of the \$200,000 of Kaw Valley drainage bonds.

Kinston, N. C.—W. D. LaRoque, Mayor, writes the MANUFACTURERS' RECORD thus: "The acts relating to bond issues for our city are only enabling acts, and it is not probable that we will issue bonds in the near future. The acts were only passed so that we would have the privilege of voting on same if we would deem it advisable within the next two years."

Kiowa, Okla.—Reported that the election last December to vote on \$31,000 of 6 per cent. 15-25-year water-works and electric-light bonds was declared void, and that a new election will be held March 12.

Lake Village, Ark.—The New First National Bank of Columbus is reported to have been awarded \$25,000 of 6 per cent. 20-year bonds of water-works improvement district No. 4 at 102.20 and accrued interest.

Laurel, Miss.—The city proposes to issue on April 6 \$10,000 of street-improvement and \$10,000 of water-works extension bonds. Andrew Flanagan is city clerk.

Laverne, Ala.—J. B. McCrady & Co. of Atlanta have purchased \$20,000 of 5 per cent. 10-20-year water-works bonds.

Lynchburg, Va.—Reported that the City Council will be asked to authorize an issue of school-building bonds.

Maplewood, P. O. St. Louis, Mo.—The question of issuing \$35,000 of school district bonds is reported under consideration by the Board of Education.

McAlester, Okla.—The \$203,000 of 5 per cent. 20-year sewer, water and jail bonds have been purchased at \$10,700 premium by Spitzer & Co., Toledo.

Memphis, Tenn.—The Bank of Commerce & Trust Co. has been awarded the \$250,000 of water bonds at par and accrued interest. It is also stated that \$245,000 of 6 per cent. paving bonds will be purchased by the same bank.

Meridian, Miss.—City will issue \$30,000 of refunding bonds.

Meridian, Miss.—March 22 and 23 election will be held to vote on \$250,000 of water-works bonds. C. W. O'Leary is city clerk.

Memphis, Tenn.—The Legislature has authorized an issue of \$200,000 of school bonds; interest not to exceed 4 per cent.

Montague, Texas.—The State Board of Education is reported to have purchased \$36,000 of Montague county 4 per cent. bridge bonds at par and accrued interest.

Moorhead, Miss.—City is reported to have sold \$12,000 of high-school building bonds.

Mobile, Ala.—Bids will be received by Pat J. Lyons, Mayor, until noon March 20 for \$320,000 of 5 per cent. 1-10-year paving bonds. A previous report gave the amount as \$32,000.

New Augusta, Miss.—The Board of Supervisors of Perry county are reported to have issued \$30,000 of 5 per cent. 5-20-year highway improvement bonds.

New Cumberland, W. Va.—Reported that election will be held in Hancock

county March 20 to vote on \$200,000 of courthouse bonds.

New Orleans, La.—Local reports state that the German-American National Bank has agreed to take \$200,000 of the \$2,000,000 public improvement bonds on condition that the remaining \$1,800,000 be taken by other local banks. A later report says that other banks have agreed to take part of the issue as follows: Whitney Central, \$340,000; Metropolitan, \$60,000; People's Saving, Trust & Banking Co., \$60,000.

Newport, Tenn.—The Legislature has passed a bill authorizing Cocke county to issue \$20,000 of 5 per cent. bonds.

Newport News, Va.—Election will probably be held in the spring to vote on \$15,000 of school bonds.

Oklahoma City, Okla.—City Council has endorsed resolution passed by School Board calling for \$150,000 of additional school bonds.

Oklahoma City, Okla.—April 6 an election will be held in Oklahoma county to vote on \$35,000 of 5 per cent. 25-year bonds to defray expenses to be incurred in carrying on the Oklahoma county courts.

Owasso, Okla.—Speer & Dow of Fort Smith, Ark., have purchased at a premium \$15,000 of school bonds.

Palestine, Texas.—Reported that a special election will be held to vote on road bonds.

Petersburg, Va.—The city finance committee has reported favorably two ordinances to issue 4 per cent. bonds, \$80,000 for schools and \$70,000 for streets.

Pineville, W. Va.—Election called March 30 to vote on \$50,000 of 6 per cent. 5-30-year Wyoming county courthouse and jail bonds.

Pittsburg, Texas.—An election has been ordered, it is reported, to vote on \$9000 of school-building bonds.

Pontotoc, Miss.—Bids will be received by J. M. Nisbet, town clerk, until March 22 for \$25,000 of 5½ per cent. 20-year school-building bonds. W. E. Whiteside is Mayor.

Rockingham, N. C.—The MANUFACTURERS' RECORD is informed that bids will be received by B. F. Reynolds, clerk Board of County Commissioners, until noon April 5 for \$20,000 of 5 per cent. 30-year Richmond county bonds.

Rome, Ga.—Reported that Floyd county proposes to issue \$200,000 of 5 per cent. 30-year road bonds.

Samson, Ala.—An ordinance is reported passed authorizing an issue of \$20,000 of water-works bonds.

Sapulpa, Okla.—A. J. McMahon, Oklahoma, is reported to have purchased \$65,000 of 6 per cent. 20-year water-extension bonds.

Snyder, Texas.—The Board of Education is reported to have purchased \$70,000 of 4 per cent. 40-year Scurry county courthouse bonds.

South Jacksonville, Fla.—The city will probably issue \$60,000 of water and sewer bonds.

Sparta, Tenn.—March 20 White county will vote on \$60,000 of road bonds, and not \$50,000, as previously reported.

Spartanburg, S. C.—Bids will be received by D. M. Miles, supervisor of Spartanburg county, until noon April 3 for \$250,000 of 4½ per cent. 30-year funding and bridge-building bonds.

Springfield, Mo.—April 6 an election will be held to vote on from \$100,000 to \$150,000 of school district bonds.

Stamford, Texas.—March 26 an election will be held to vote on \$20,000 of street-improvement bonds.

Tampa, Fla.—The City Council has passed a resolution authorizing \$550,000 of City Hall, street, sewer and other improvement bonds.

Thomaston, Ga.—T. M. Mathews of Thomaston has been awarded \$10,000 of 6 per cent. electric-light bonds at \$883 premium.

Tulsa, Okla.—Voted: \$100,000 gas mains, \$25,000 park, \$20,000 fire department.

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ment, \$20,000 water-works, \$20,000 re-funding and \$10,000 city storage bonds. E. B. Cline is city clerk. Spitzer & Co., Toledo, Ohio, are reported to have purchased the park, fire department, water-works and storage-plant bonds at a premium.

Tyler, Texas.—The city is reported to have purchased \$1500 of public school building bonds.

Union Springs, Ala.—An election will be held in Bullock county March 13 to vote on \$100,000 of road-improvement bonds. Previous issue declared void. A. E. Singleton is judge of probate.

Valdosta, Ga.—April 14 an election will be held to vote on \$50,000 of 30-year water-works, electric-light and other improvement bonds.

Wake Forest, N. C.—Election April 12 to vote on electric-light-plant bonds; amounts not to exceed \$15,000; Sol. J. Allen, Mayor.

Wakefield, N. C.—Election is to be held in Wake county April 6 to vote on \$10,000 of 6 per cent. 30-year bonds of Wakelon graded and high school district.

Waurika, Okla.—Voted: \$12,000 of City Hall, \$5000 enlargement of wells, \$25,000 water-works extension and \$8000 sewer-extension bonds.

Watonga, Okla.—Reported voted: \$13,400 funding, \$3400 light extension and \$1200 water improvement bonds.

Weatherford, Texas.—Election reported ordered to vote on \$12,000 of central school-building bonds.

Wesson, Miss.—W. B. Jones of Flora, Miss., was awarded at a premium the \$8000 of municipal bonds.

Westminster, S. C.—Voted: \$5000 of school district bonds.

Wilson, N. C.—Bill is reported to have passed the Legislature authorizing issue of graded school district bonds.

At Camden, S. C., bids will be received until noon April 5 for \$40,000 of 5 per cent. 25-year Kershaw county bonds. Further particulars will be found in the advertising columns.

At Rockingham, N. C., bids will be received until noon April 5 for \$20,000 of 5 per cent. 30-year Richmond county bonds. Further particulars will be found in the advertising columns.

At Elberton, Ga., bids will be received until 8 P. M. April 1 for \$35,000 of school and \$5000 of electric-light 5 per cent. bonds. Further particulars will be found in the advertising columns.

At Spartanburg, S. C., bids will be received until noon April 3 for \$250,000 of 4½ per cent. 30-year Spartanburg county

funding and bridge bonds. Further particulars will be found in the advertising columns.

Financial Notes.

Roscoe State Bank, Roscoe, Texas, will, it is stated, increase its capital from \$20,000 to \$30,000.

The Citizens' Bank of Rome, Ga., has amended its charter to reduce its capital stock from \$100,000 to \$50,000.

Bank of Huntington at Huntington, Ark., is reported to have increased its capital from \$10,000 to \$15,000.

Reported that the capital of the Traders and Truckers' Bank, Norfolk, Va., will be increased from \$50,000 to \$100,000.

Alabama Trust and Savings Bank, Birmingham, Ala., is reported to have established a branch at Vincent, Ala., with Charles P. Willis, manager.

Five bonds issued in behalf of the Ravenswood, Spencer & Glennville Railway Co. by Jackson county will be redeemed on or before August 31. C. C. Staats is county clerk.

The Southern Railway Co. has sold to a syndicate \$21,333,000 of 4 per cent. development and general mortgage bonds, series A, which are being offered for sale at 79 and interest by J. P. Morgan & Co., the First National Bank and the National City Bank, all of New York. They will accept until April 1 in payment for the above bonds the five-year 5 per cent. collateral bonds of the Southern Railway at 102½. The latter bonds mature April 1, and must carry the coupon then due.

TRUSTEES' SALE OF QUINN FURNACE AND PROPERTIES

Gadsden, Ala., March 1, 1909. Under an order and decree of sale of the District Court of the United States for the Eastern Division of the Northern District of Alabama, in Bankruptcy, the undersigned will sell at public outcry for cash in front of the courthouse door of Etowah county, at Gadsden, Alabama, on Monday, the 19th day of April, 1909, all the real estate and personal property of the Quinn Furnace Company, a bankrupt, consisting of about thirty acres of land, more or less; a charcoal furnace with a daily capacity of about thirty tons, all houses, buildings, charcoal ovens, railway and tram tracks, etc., and all fixtures and personal property connected therewith. This property will be sold free from incumbrances, and subject to approval by the court. For further information as to description, inventory and appraisement of the property apply to us at Gadsden, Alabama.

CHARLES P. SMITH,
JOSEPH BALFOUR,
J. W. HAMMOND.

As Trustees of the Quinn Furnace Co.

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\$21,333,000

Southern Railway Company

DEVELOPMENT AND GENERAL MORTGAGE
FOUR PER CENT. GOLD BONDS (SERIES A).

Principal payable April 1st, 1956; interest payable October 1st and April 1st.

Bonds will be in coupon form of \$1,000 each, or in registered form of \$1,000 or multiple thereof. Coupon and registered bonds interchangeable.

On behalf of the Syndicate which has purchased the above mentioned bonds, the undersigned offer, subject to prior sale, \$21,333,000 of said Bonds at 79 and accrued interest.

Until April 1, 1909, the undersigned will accept at 102½ flat, in payment for the above bonds, the Five Year 5 Per Cent. Collateral Gold Bonds of the Southern Railway Company, maturing April 1, 1909, and carrying the coupon due April 1, 1909.

Temporary receipts will be issued pending delivery of definitive bonds.

Mr. W. W. Finley, President of the Southern Railway Company, has addressed to us a letter under date of March 1, 1909, setting forth fully the position of the Company's Development and General Mortgage Bonds and the present condition of the Company. Copies of this letter may be obtained by application at our office.

J. P. MORGAN & CO.

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